TriHealth Laboratories

REFLEX TESTING

Reflex testing is an important tool in providing timely, cost-effective and quality care to patients. A reflex test is a laboratory test performed (and charged for) subsequent to an initially ordered and resulted test. Reflex testing occurs when an initial test result meets pre-determined criteria (e.g., positive or outside normal parameters), and the primary test result is inconclusive without the reflex or follow-up test. It is performed automatically without the intervention of the ordering physician. Reflex testing may prevent the need for additional specimen procurement from the patient.

The reflex test adds valuable diagnostic information and is consistent with best medical practices. Certain confirmatory reflex tests are required by law; but generally each laboratory establishes its own criteria for medically appropriate reflex tests. A laboratory must disclose to the ordering physician its protocol for performing reflex testing and provide the physician with the opportunity to decline the follow-up tests.

The following chart contains the criteria used for reflex testing at TriHealth Laboratories. Shaded blocks indicate those tests that are performed by a referral laboratory. This information is provided in the Lab User Manual, available on the Bridge for in-house practitioners, and also on the TriHealth Laboratories Test Menu website for outreach clients. Upon major revision, this reflex testing protocol is presented to the Laboratory Utilization and Practice Committee (LUPC) for medical staff approval.

If a physician does not want a reflex test performed according to the protocol established by TriHealth Laboratories, he/she must indicate such <u>at the time the initial test is ordered</u>.

CPT	INITIAL TEST	REFLEX CRITERIA	REFLEX TEST	CPT
85307	Activated Protein C (APC) Resistance	Abnormal ratio or Anticoagulant interference	Factor V Leiden	81241
86038	ANA Screen Reflex to Titer	Positive	Titer	86039
86063	Anti-Streptolysin O (ASO)	Positive	Titer	86060
82175	Arsenic, Urine	35-2000 mcg/L	Fractionated Arsenic, Urine	82175
86615 x3	*Bordetella pertussis* Antibodies (IgA, IgG, IgM)	IgA ≥1.2 U/mL IgG ≥1.0 U/mL IgM ≥1.2 U/mL	Each *Bordetella pertussis* Antibody by Immunoblot	86615
85025	CBC *Anemia Screening* *Select pre-op*	Hemoglobin <13.0 g/dL Male or <12.0 g/dL Female	Reticulocyte Count B12 Ferritin Iron Battery Differential if WBC <3.6 or >10.5	85045 82607 82728 83540+83550 Replace 85027 with 85025
	28-week OB Visit	<10.0 g/dL		
82784	Celiac Disease Reflexive Cascade	IgA <7 mg/dL	tTG IgG and DGP IgG	83516 x2
		IgA ≥7 mg/dL but below age-matched range	Celiac Dual Antigen Screen with Reflex	83516
			If Screen ≥20 Units then tTG IgA and DGP IgA	83516 x2
			If IgA tests negative then tTG IgG and DGP IgG	83516 x2
		Adequate IgA for age	tTG IgA	83516
			If tTG IgA 4-40 U/mL then DGP IgA and EMA IgA by IFA	83516 86256

CPT	INITIAL TEST	REFLEX CRITERIA	REFLEX TEST	CPT
87493	*Clostridium difficile* PCR	Positive (Infection Prevention specimens do not automatically reflex. Call Infection Prevention Alert.)	*Clostridium difficile* Toxin A/B	87324
86900 86901 86880	Cord Blood Profile: • ABO Group • Rh Type • Direct Antiglobulin Test (DAT)	Rh Negative	Du Antigen (Weak D)	86885
		DAT Positive	Type and Screen on maternal specimen	86900 86901 86850
			and/or Antibody Elution on cord blood	86860
86403	Cryptococcal Antigen	Positive	Titer	86406
89051	CSF Cell Count	RBC >10/mcL on CSF Tube #4	Repeat Cell Count on CSF tube #1 (no differential)	89050
Varies	Culture	Reflex testing depends on specimen and source	Antimicrobial Susceptibility	87186 or 87184
			and/or Gram Stain	87205
			and/or Anaerobic Culture	87075
			and/or PCR Panel	87150
80307	Drug Screen with Reflex to Confirmation	Positive	Confirmation by GC/MS of each component as needed	80321 80359 80324 80361 80345 80362 80346 80365 80347 80367 80348 80368 80349 80369 80353 80372 80354 80373 80356 83992 80358
80307	Drug Screen, Serum or Plasma	Positive	Confirmation by GC/MS of each component as needed	80324 80358 80345 80359 80346 80361 80348 80365 80349 83992 80353
80305	Drug Screen, Universal *(Labor & Delivery ONLY)*	Positive	Confirmation by GC/MS of each component as needed	80154 83805 80184 83840 82145 83887 82520 83925 82542 83992
82947	Glucose (McCullough Hyde ONLY for Healthy Miami employees)	>99 mg/dL	Hemoglobin A1c	83036
82175 82300 83655 (82525+ 83825 84630)	Heavy Metals Panel 4 (or 6), Urine	Positive Arsenic	Fractionated Arsenic, Urine	82175
85060	Hematology Consult (HEMC)	HEMC ordered with no CBC or CBCD within past 48 hours	CBCD	85025
83020 85025	Hemoglobin Electrophoresis	Unidentifiable abnormal band present	Referral lab tests as determined by pathologist	Varies
		S band present	Sickle Cell Screen	85660
87340	Hepatitis B Surface Antigen	Reactive	HBsAg Confirmation	87341
86022	Heparin-Induced Platelet Antibody w/reflex to Serotonin Release Assay	Positive	Serotonin Release Assay	86022
87624	HPV High Risk by TMA with Reflex to Genotypes	Positive	HPV Genotypes 16 and 18/45	87625

CPT	INITIAL TEST	REFLEX CRITERIA	REFLEX TEST	CPT
87389	Human Immunodeficiency Virus (HIV) 1 & 2 Antibodies	Reactive	HIV 1 & 2 Antibody Differentiation, Supplemental	86701 + 86702
86790	Human T-Lymphotropic Virus (HTLV) Types I/II Antibodies	Positive	HTLV I/II Confirmation by Western Blot	86689
80061	Lipid Panel (Outpatient Only)	Triglyceride >400 mg/dL	Direct LDL	83721
83605	Lactate-Initial	>2.0 mmol/L	1st Lactate repeat, if still >2.0 mmol/l a 2nd Lactate repeat is performed	83605
85730 85612	Lupus Anticoagulant (LA) • PTT-LA • dRVV Screen	Abnormal	**Workup may include one or more:**	
			Phase LA Hexagonal delta	85598
			dRVV Confirm	85613
			DVVT 50:50 Mix	85613
86618	Lyme Antibodies, Total with Reflex to IgG and IgM Immunoblot, Early Disease	Positive	*Borrelia burgdorferi* Ab, IgG by Immunoblot	86617
			Borrelia burgdorferi Ab, IgM by Immunoblot	86617
86618	Lyme Antibodies, Total with Reflex to IgG Immunoblot, Late Disease	Positive	*Borrelia burgdorferi* Ab, IgG by Immunoblot	86617
82664	Protein Electrophoresis, Serum	Gamma Peak ≤0.5 g/dL	IgG, IgA, IgM	82784 x3
		Paraprotein present	IgG, IgA, IgM, and Immunofix if new patient not previously identified	82784 x5 86334
84166	Protein Electrophoresis, Urine	Paraprotein present	Immunofix if new patient not previously identified	86335
87430	Rapid Strep Group A Antigen	Negative	Strep Group A DNA or Upper Respiratory Culture	87651 87070
85461	Rh Immunoglobulin Workup: • Fetal Cell Screen	Positive	Kleihauer-Betke Stain	85460
84703	Serum HCG, Qualitative	Positive** **The positive result will be changed to PSHCG (see beta HCG quantitative result)	Beta HCG, Quantitative	84702
86800	Thyroglobulin	Above the normal reference limit	Thyroglobulin by LC-MS/MS	84432
		Negative	Thyroglobulin by CIA	84432
83516	Tissue Transglutaminase Antibody, IgA	≥4 U/mL	Endomysial Antibody, IgA titer by IFA	86256
86780	Treponema Antibody	Positive or Equivocal	RPR	86593
			If RPR non-reactive, then TP-PA (T. pallidum Particle Agglutination)	86780
84443	TSH with Reflex to Free T4	TSH > or < normal range for patient's age	Free T4	84439
86900 86901 86850	Type and Screen: • ABO Group • Rh Type • Antibody Screen	Antibody Screen Positive	**Workup may include any/all:**	
			Antibody Identification Panel	86870
			Direct Antiglobulin Test for AHG, IgG, C3d	86880 x3
			Antigen Type patient RBCs *(one antigen type per antibody ID'd)*	86905
			Antibody Elution	86860

			Antibody Titer (pregnant patient, antibody is associated to HDFN)	86886
			Hoxworth Reference Case	86999
			If inpatient: • Antigen Type donor RBCs *(one antigen type per antibody ID'd per unit)* • Crossmatch pRBCs *(per unit)*	86902 86922
CPT	**INITIAL TEST**	**REFLEX CRITERIA**	**REFLEX TEST**	**CPT**
81003	Urinalysis with Reflex to Microscopic	Appearance not clear and/or positive Protein, Blood, Leukocyte Esterase or Nitrite	Urinalysis with Microscopic	Replace 81003 with 81001
81001	Urinalysis with Reflex to Culture	Positive Leukocyte Esterase or Nitrite, or WBC ≥6-10/hpf	Urine Culture	87086
85240 85246 85245	vWD Complete Profile	One or more: VW Activity/VW Antigen ratio <0.7 Factor 8 Activity <50% von Willebrand Antigen, vWF: AG <50% von Willebrand Activity, vWF, R:Co <50%	von Willebrand Multimer Analysis	85247

(Blue: PLP / Gray: ARUP/ Green: Cincinnati Children's)

REFERENCE

HHS Office of Inspector General. Publication of OIG Compliance Program for Clinical Laboratories. *Federal Register* Notice, Vol. 63, No. 163, August 24, 1998, 45076-45087.