

## UCH Clinical Laboratory Reflex Test Protocols

Test Ordered	Initial Test Performed	Criteria for Reflex	Tests Ordered by Reflex, as applicable
<b>Blood Bank</b>			
Prepare RBCs for Transfusion (aka Crossmatch)	N/A	No Antibody Screen ordered	Antibody Screen
Direct Antiglobulin Test (DAT)	Polyspecific DAT	Positive polyspecific DAT	IgG DAT, C3 DAT
Fetal Cell Screen	Fetal Cell Screen	Positive	Fetal Hemoglobin
Rh Type	Rh Type	Rh-negative mother with Rh - positive or Rh-unknown baby	Type and Screen and/or Rh Immunoglobulin
Type and Screen	ABO, Rh, Antibody Screen	Positive antibody screen No historical ABO type	Antibody identification ABO Group (retype)
<b>Chemistry/Immunoassay</b>			
Celiac Disease Reflex Panel	IgA	IgA 10 mg/dL or greater  IgA less than 10 mg/dL	Tissue Transglutaminase IgA Ab and Deaminated Gliadin Peptide IgA Ab Tissue Transglutaminase IgG Ab and Deaminated Gliadin Peptide IgG Ab
<b>Flow Cytometry</b>			
Anti-CD20 Therapy Monitor	CD20 Panel and Complete Blood Count (CBC) with differential (DIFF).	Requires the Absolute Lymphocyte Count from a CBC and differential.	CBC with Diff is automatically ordered and performed. Manual differential is ordered and performed when autodiff fails.
CD4 Helper T Cells	CD4 Panel and Complete Blood Count (CBC) with differential (DIFF).	Requires the Absolute Lymphocyte Count from a CBC and differential.	CBC with Diff is automatically ordered and performed. Manual differential is ordered and performed when autodiff fails.
T Cell Panel	T Cell Panel and Complete Blood Count (CBC) with differential (DIFF).	Requires the Absolute Lymphocyte Count from a CBC and differential.	CBC with Diff is automatically ordered and performed. Manual differential is ordered and performed when autodiff fails.
T and B Cell Panel	T and B Cell Panel and Complete Blood Count (CBC) with differential (DIFF).	Requires the Absolute Lymphocyte Count from a CBC and differential.	CBC with Diff is automatically ordered and performed. Manual differential is ordered and performed when autodiff fails.
Lymphocyte Enumeration of TBNK	TBNK Panel and Complete Blood Count (CBC) with differential (DIFF).	Requires the Absolute Lymphocyte Count from a CBC and differential.	CBC with Diff is automatically ordered and performed. Manual differential is ordered and performed when autodiff fails.
<b>Hematology and Coagulation</b>			
Heparin Induced Antibody (HIT) Reflex	HIT	Positive	Serotonin Release Assay
Russell Viper Venom Time Test (RVVT)	RVVT	Abnormal RVV Test (screen) or ratio	RVVTCONF
CBC/Plt/Autodiff	CBC/Plt/Autodiff	Autodiff fails	CBC, no autodiff
Fetal Lung Maturity (Lamellar Body Count)	Lamellar Body Count	Intermediate Result	LS Ratio with PG Profile

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<b>Immunology</b>			
Hepatitis B Surface Antigen	Hepatitis B Surface Antigen	Reactive, females under 45 years	Confirmation by neutralization
RPR (Rapid Plasma Reagin)	Treponema pallidum Ab	Treponema pallidum Ab result is Reactive or Equivocal	Rapid Plasma Reagin (RPR). If RPR is reactive, RPR titer
Treponema pallidum Ab with reflex	Treponema pallidum Ab	Reactive	Rapid Plasma Reagin (RPR). If RPR is reactive, RPR titer
<b>Microbiology</b>			
AFB Culture	AFB Culture	Positive culture	AFB Smear; Identification, AFB Probe; Identification, aerobic; Identification, anaerobe; Identification, mold; Identification, Mycobacteria/ AFB; Identification, yeast; Sensitivity (per drug); Concentration; Confirmatory stains; Tissue homogenization
Blood Culture	Blood Culture	Positive culture	Identification, aerobic; Identification, anaerobe; Identification, enzyme detection; Identification, mold; Identification, Mycobacteria/ AFB; Identification, yeast; Sensitivity; Culture typing; per antiserum
CMV Genotype	CMV PCR Qualitative, CMV PCR Quantitative	CMV PCR greater than 2000 copies/mL	CMV Genotype
Fungus Culture (source other than skin, hair or nails)	Fungus Culture (source other than skin, hair or nails)	Positive culture	Identification, aerobic; Identification, anaerobe; Identification, mold; Identification, Mycobacteria/ AFB; Identification, nucleic acid probe Identification, yeast; Sensitivity, yeast; Tissue homogenization
Fungus Culture, Skin/Hair/ Nails	Fungus Culture, Skin/Hair/ Nails	Positive culture	Identification, aerobic; Identification, anaerobe; Identification, mold; Identification, Mycobacteria/ AFB; Identification, yeast; Tissue homogenization
Hepatitis C Genotype	Hepatitis C Quant PCR	HCV PCR greater than 1000 IU/mL	Hepatitis C Genotype
HIV Genotype	HIV Quant PCR	HIV PCR greater than 2000 copies/mL	HIV Genotype
HIV 1/2 Antibody-Antigen Screen	HIV 1/2 Antibody-Antigen Screen	Positive screen	Confirmation & HIV-1/2 Differentiation

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Ova & Parasites Complete	If clinical criteria not met, Giardia Antigen and Cryptosporidium Antigen will be substituted.	Clinical criteria for Complete O & P are not met (refer to Test Catalog).	Giardia antigen; Cryptosporidium antigen; Cryptosporidium Stain; Trichrome Stain; Concentration
Rapid Respiratory Viral Culture	Rapid Respiratory Viral Culture	Positive	Identification, RSV Identification, Inf A Identification, Inf B Identification, Para 1 Identification, Para 2 Identification, Para 3 Identification, Adeno Identification, CMV Identification, HSV
Rapid Streptococcal A Antigen	Rapid Streptococcal A Antigen	Negative	Throat Culture, Group A Strep only
Routine Bacterial Culture (on source other than blood, urine, or stool)	Routine Bacterial Culture	Positive culture	Identification, aerobe; Identification, anaerobe; Identification, enzyme detection; Identification, mold; Identification, Mycobacteria/ AFB; Identification, yeast; Sensitivity; Gram Stain; Anaerobic culture; Tissue homogenization
GI PCR PANEL PLUS	Aeromonas Culture GI PCR PANEL	None Positive Salmonella Positive Shigella/EIEC Positive for Vibrio or Vibrio	None Salmonella Culture Shigella Culture State Health Confirmation
Urine Culture	Urine Culture	Positive culture	Identification, urine organism; Identification, aerobe; Identification, anaerobe; Identification, enzyme detection; Identification, mold; Identification, Mycobacteria/ AFB; Identification, yeast; Sensitivity
Viral Culture	Viral Culture	Positive	Identification, RSV Identification, Inf A Identification, Inf B Identification, Para 1 Identification, Para 2 Identification, Para 3 Identification, Adeno Identification, CMV Identification, HSV
Viral Culture - CSF	Viral Culture - CSF	Positive	Identification, HSV Identification, CMV

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<b>Sendouts</b>			
ACHR Binding/Blocking w/Reflex Modulate	ACHR Binding, ACHR Blocking	Acetylcholine Receptor Binding AB greater than 0.4 nmol/L or Acetylcholine Receptor Blocking AB greater than 15%	Acetylcholine Receptor Modulating AB
ANA w/ reflex to titer & ANA Group	ANA, Anti-Centromere	Positive ANA	Titer, Anti-Sm, Anti-RNP, Anti-SSA, Anti-SSB, Anti-DNA
ANCA with reflex to titer	c-ANCA p-ANCA	Positive Positive	c-ANCA titer p-ANCA titer
ANCA Positive with reflex to titer & MPOAB or PR3AB	c-ANCA p-ANCA	Positive Positive	Titer Titer and PR3 Ab or MPO Ab
Anti-Mitochondrial Antibody	Antimitochondrial Ab	Positive	AMA titer
Arsenic Urine	Arsenic Urine	35-2000 ug/L	Arsenic Speciation
HTLV I/II EIA w/Reflex to WB	HTLV I/II Screen	Positive Screen	HTLV I/II Confirmation
Lyme Screen Ab w/Rflx to Western Blot	Lyme Screen	Positive screen	Lyme IgG WB and Lyme IgM WB
Meconium Drug Screen	Screen for nine drugs	Positive	Confirmation for positive drugs
NMDAR CSF IgG w/Reflex	NMDAR CSF IgG	Positive screen	NMDAR CSF IgG Titer
NMDAR IgG w/Reflex	NMDAR IgG	Positive screen	NMDAR IgG Titer
Paraneoplastic Ab Panel	See Test Catalog	Positives based on Mayo algorithm	As applicable: GAD65 Ab Assay, Paraneoplastic Autoantibody WBlot, CRMP-5-IgG Western Blot, ACh Receptor (Muscle) Modulating Ab, Amphiphysin Western Blot, NMO/AQP4-IgG CBA
Q-Fever IgG/IgM w/ Reflex Titer	Q-Fever Phase I IgG Q-Fever Phase II IgG Q-Fever Phase I IgM Q-Fever Phase II IgM	Positive Positive Positive Positive	Q-Fever I IgG Titer Q-Fever II IgG Titer Q-Fever I IgM Titer Q-Fever II IgM Titer
Reticulin AB IGA w/ Reflex	Reticulin AB IGA	Positive screen	Reticulin AB Titer
Streptozyme w/ Reflex to Titer	Streptozyme Antibody	Positive screen	Streptozyme Titer
Striated Muscle AB w/ Reflex	Striated Muscle AB	Positive screen	Striated Muscle Titer
VDRL CSF	VDRL CSF	Positive screen	VDRL Titer
<b>Special Chemistry</b>			
Hemoglobin Electrophoresis	Hemoglobin Electrophoresis	CBC not already performed within 7 days of Hgb Elect order. Patient has no previous testing at UCH Clinical Laboratory.	CBC  IEF
SPEP (Serum Protein Electrophoresis) with Reflex IFE	Protein Total, Serum/Plasma and SPEP	Monoclonal protein is suspected based on the SPEP result or a suggestive clinical scenario.	Immunofixation Electrophoresis, Serum (IFE S); Pathology Interpretation
UPEP (Urine Protein Electrophoresis) with Reflex IFE	Protein, timed urine and UPEP	Monoclonal protein is suspected based on the UPEP result or a suggestive clinical scenario.	Immunofixation Electrophoresis, Urine (IFE U); Pathology Interpretation

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<b>Toxicology</b>			
Drug Screen Panel as selected	Drug Screen Panel as selected	Positive for Barbiturates, Cocaine, Opiates or Phencyclidine.	Confirmation testing (as applicable to panel ordered).
<b>Urinalysis</b>			
Urinalysis, Reflex	Urinalysis Chemical	Any appearance other than "Clear", and/or Positive Protein, Blood, Nitrite, and/or Leukocyte esterase	Microscopic Examination