The Pathology Council of Alverno Laboratories has determined that follow-up testing and/or confirmation of the following tests is medically necessary in order to provide appropriate patient care. Changes are highlighted in YELLOW. Deleted are highlighted in RED.

November 2021

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| --- | --- | --- | --- |
| **Original Test** | **Orderable with or without reflex** | **Result** | **Follow-up/Confirmation Test** |
|  |  |  |  |
| Allergen Profile: Childhood Food & Environmental Panel | Yes | Egg white (f1).0.1 Ku/L  Milk (f2)>0.1 Ku/L  Peanut (f13) > 0.1 Ku/L | Reflex to egg, milk, and/or peanut component allergen profile |
| Allergen Profile: Food Allergy Panel | Yes | Egg white (f1).0.1 Ku/L  Milk (f2)>0.1 Ku/L  Peanut (f13) > 0.1 Ku/L | Reflex to egg, milk, and/or peanut component allergen profile |
| ANA by multiplex EIA, Screen | Yes | Positive | Quantitative detection of DsDNA, semi-quantitative detection of: Chromatin, Ribosomal P, SS-A, SS-B, Sm, SmRNP, RNP, Scl-70, and Centromere B. |
| ANA by IFA with reflex to multiplex EIA | Yes | Titer ≥ 1:80 | Quantitative detection of DsDNA, semi-quantitative detection of: Chromatin, Ribosomal P, SS-A, SS-B, Sm, SmRNP, RNP, Scl-70, and Centromere B. |
| Antibody Screen | No | Positive | Antibody ID |
| Antibody Screen | No | Positive | Antigen-type units for crossmatch |
| Blood Culture | No | Positive for Staph aureus by Sepsityper assay | PCR for confirmation of Staph aureus identification and mecA (MRSA) resistance marker detection. |
| Body Fluid Slide | No | Abnormal cells | Pathologist review |
| Breast Cancer (new diagnosis) | No | Carcinoma | HER-2 (reflex to FISH if applicable)  Estrogen/Progesterone receptors. |
| CBC | No | Specified abnormal flags | Pathologist review and/or scan and/or manual diff |
| Clostridium difficile | No | GDH + / Toxin negative | PCR confirmation |
|  |  |  |  |
| Colorectal carcinoma, MMR | No | MLH1 deficient | BRAF V600E (Alverno) with reflex to MLH1 promoter methylation in wild type cases (ARUP) |
| CSF specimen | No | CSF specimen is cloudy (not bloody) | STAT Gram Stain |
| Cystic Fibrosis Screen | No | Homozygous for  Delta F508 mutation | I506V, I507V, and F508C polymorphisms  Sent to Reference lab |
| Coronary Risk Panel | No | Triglycerides > 400 mg/dl | Direct LDL |
| Culture | No | Suspected pathogens | Organism ID & Susceptibility Testing if indicated |
| Culture, Acid Fast | No | All | AFB stain |
|  |  |  |  |
| Endometrial endometroid adenocarcinoma, MMR | No | MLH1 deficient | MLH1 promoter methylation (ARUP) |
| Fetal Bleed Screening Test | No | Positive | Kleihauer-Betke fetal cell stain or flow cytometry test for the detection of fetal hemoglobin. |
| Group B Streptococcus by PCR | No | Unresolved/Indeterminate | Culture |
| Group B Streptococcus by PCR (Sensitivity Testing) | No | Positive on Penicillin allergic patients | Culture and Antibiotic Susceptibility Testing |
| Hemoglobin A1C | No | All | Estimated Average Glucose (EAG calculation) also reported |
| Hemoglobin electrophoresis | No | If peak is in “S” zone  If peak is in “C” zone  Other abnormal findings | Sickle screen  Acid Plate  Sent to Reference lab if indicated |
| Heparin Induced Platelet Antibodies | No | If positive | Serotonin Release Assay |
| Hepatitis A Cascade | Yes | If Hepatitis A total is Positive or Equivocal | Hepatitis A IgM |
| Hepatitis B Surface Antigen | No | If Hepatitis B Surface Antigen Index value is repeatedly between 1.00 and 50.00 or result is >=50.00 in a stand-alone order without other Hep B serology assays to confirm. | Hepatitis B Surface Antigen Confirmation by neutralization. |
| Hepatitis C Screen | No | Positive & equivocal | PCR Quantitative Confirmation |
| HIV Phenotype Comprehensive (HIVPN) | No | ARUP will not run HIVPN until a HIV Viral Load test is run first. | HIV Viral Load Test |
| HIV – Rapid Test | No | Positive | HIV 5th Generation Screen |
| HIV 5th Generation Screen | No | Reactive | Geenius confirmation (HIV Ab Differentiation Immunoassay) |
| Geenius confirmation (HIV Ab Differentiation Immunoassay) | No | Nonreactive, Indeterminate, HIV Positive Untypable (Undifferentiated) | -Nonreactive, Indeterminate or Undifferentiated sent to reference lab for HIV-1 RNA NAT |
| LDL | No | LDL calculation is negative | Direct LDL |
| Lupus Anticoagulant Reflexive Panel | No | If indicated | Fibrinogen, dRVVT and Silica Clotting Time(SCT) confirmation, and dRVVT and SCT mixing studies. |
| Lyme Disease | No | Positive or equivocal EIA/IFA test | Western Blot confirmation |
| Malaria Smear | No | Positive | Sent to Reference Lab for confirmation by PCR |
| Malaria, Rapid Screen and Smear | No | Pos antigen / Neg smear or Neg. antigen/Pos smear | Sent to Reference Lab for Confirmation by PCR |
| Newborn Metabolic Error Screen | No | - | - Collection required before baby leaves the hospital  - if 1st screen is collected <24 hrs after 1st protein feeding, no-charge repeat is required  - State does follow-up with parents and MD if any screen result is positive |
| Organism ID | No | All Identified Pathogens | Antibiotic susceptibility if indicated. |
| Pain Management urine with interpretation | No | Positive Screen for Ethyl Glucuronide | Ethyl Glucuronide and Ethyl Sulfate, urine, quantitative. |
| Pap smear / thin prep | No | Suspected Abnormal Cells | Pathologist interpretation |
| Pap HPV Reflex if ASCUS | Yes | Pap with ASCUS result | HPV |
| Pap HPV on Any Abnormal | Yes | Pap with any abnormal result | HPV |
| Prenatal Testing (Blood Bank) | No | Positive Antibody Screen  Clinically significant antibodies detected in Prenatal Antibody Screen | Antibody identification performed  Antibody titer performed |
| Serum Creatinine | No | All (greater than 20 years of age) | Glomerular Filtration Rate (GFR -calculation) also reported |
| Serum Protein Electrophoresis | Yes | Positive | Immunotyping |
| Strep Screen by EIA/FIA (Group A Strep – throat screen) | No | Strep screen negative for Group A Streptococcus | Culture performed |
| Syphilis Screen (RPR) | No | Reactive / Positive | RPR quantitative & Syphilis Screen (Treponema specific) |
| Susceptibility Testing | No | Pan Resistant Pseudomonas species:  Confirmed CRE KPC  Confirmed CRE not NDM:  Elizabethkingia meningiosepticum/  PAN Resistant Acinetobacter species: | Ceftazidime-avibactam  Ceftolozane-tazobactam  Ceftazidime-avibactam  Meropenem-Vaborbactam  Ceftazidime-avibactam  Colistin |
| Syphilis Screen (Treponema specific) | No | Reactive / Positive | RPR / RPR quantitative (if indicated) |
| RPR / RPR quantitative (if indicated) | No | Nonreactive (if Syphilis Screen (EIA) is reactive or equivocal)  Reactive (if Syphilis Screen (EIA) is equivocal) | TP-PA (Treponema pallidum Particle Agglutination) |
| Therapeutic phlebotomy | No | Requested | H/H must be performed within 24 hr prior to phlebotomy |
| Transfusion (packed cells or platelets) | No | Requested | H/H or platelet count must be performed prior to transfusion |
| Urinalysis | No | Specified positive biochemical results: glucose value of >= 1000 mg/dL or positive blood or positive protein or positive nitrite or positive leukocyte esterase. | Urine microscopic |
| Urinalysis / Culture reflex | Yes | > 10 WBC per HPF  and either one or both abnormal Leukoesterase or Nitrite | Urine Culture |
| Urine Drug Screen – Chain of Custody | No | Positive | Confirmation by LC / MS (based on client) |
| Urine Drug Screens – All Panels | Yes | Positive | Confirmation by LC/MS |
| Pain Management – Urine Drug Test | No | Positive | Confirmation by LC/MS |
| Pain Management-Saliva Drug Test | No | Positive | Confirmations by GC or LC/MS |
| VDRL (CSF) | No | Positive | Titer |

NOTES:

1. All routine stool cultures include examinations for Salmonella, Shigella, Campylobacter, Aeromonas, Pleisiomonas, Edwardsiella and predominant growth of Klebsiella Oxytoca. Examinations for E. coli 0157 will be automatically performed by the laboratory if a bloody stool specimen is submitted for routine stool examination. Examinations for other enteric pathogens (Vibrio, E. coli 0157, Yersinia) will be performed only upon physician request. Special physician requests for Vibrio, E. coli 0157 or Yersinia will also trigger the performance of a routine stool culture. E.coli 0157 culture will automatically include Shiga Toxin testing also.
2. 24-hour urine creatinine test will not be performed on all 24-hour urine specimens unless specifically requested by the physician.
3. All routine body fluid, wound, sputum and “other” culture orders include a gram smear to be performed on the original specimen.
4. Orders for a Triple Prenatal Risk Assessment Screen will be converted to a Quad Prenatal Risk Assessment Screen. The Alverno Pathology Council has determined that Alverno will no longer offer the Triple Prenatal Screen (effective 4/1/2015).
5. All thyroglobulin antigen orders will be accompanied with a thyroglobulin antibody assay to determine if antibodies are present. If antibodies are present the thyroglobulin antigen assay will be sent to ARUP to be performed by LC/MS-MS methodology. If antibodies are not present, the thyroglobulin antigen assay will be performed in-house via immunoassay methodology (go-live 12/7/21).
6. Orders for "Fungal Antibody Screen" include the following:

* Histoplasma antibody
* Blastomyces antibody
* Coccidioides antibody
* Aspergillus antibody

*Note: Any of the four fungal antibodies listed above may be ordered individually by the physician.*

**Addendum A**

**Clinical Laboratory Interpretation Services**

**The Pathologist may automatically interpret the clinical laboratory services listed below. This professional interpretation will be written and included on the patient’s test report.**

* Hemoglobin Electrophoresis
* Nucleic acid probe, with electrophoresis, with examination and report
* Protein, total, serum, urine; electrophoretic fractionation and quantitation
* Abnormal blood smear; interpretation and report
* Fibrinolysin; screening
* Platelet aggregation (in vitro), any agent
* Fluorescent antibody, screen
* Fluorescent antibody, titer
* Immunoelectrophoresis / Immunotyping; serum, each specimen – capillary immunotyping
* Immunoelectrophoresis / Immunotyping; other fluids (e.g. urine) with concentration, each specimen
* Dark field examination, any source (e.g. penile, vaginal, oral, skin); includes specimen collection.
* Mixing Studies – PT and/or APTT
* Smear, primary source, with interpretation; special stain for inclusion bodies or intracellular parasites (e.g. malaria, kala azar, herpes)
* Crystal Identification by light microscopy with or without polarizing lens analysis, any body fluid (except urine)
* Deviations from standard Blood Bank Procedures
* Transfusion Reaction Workups
* Immunophenotyping by flow cytometry
* FISH Analysis
* Endomysial antibodies for celiac sprue
* Cystic Fibrosis Gene Analysis
* Lupus Anticoagulant Reflexive Panel
* Antiphospholipid Syndrome Panel
* Cystic fibrosis
* Microsatellite Instability for Lynch Syndrome
* Microsatellite Instability for Checkpoint Therapy