EMERGENCY (STAT) TESTS

The tests listed below are available 24 hours a day on a priority basis, with minimum delay, after receipt in the Laboratory. Turnaround times (TAT) refer to the time interval between specimen receipt in the Laboratory to reporting of results in the electronic lifetime medical record (LCR). Double bag all samples sent through the tube system.

Tests **in bold** appear on the Critical Test Results/ Values table (Appendix III). If these test results fall in the critical range, the results will be called to the ordering physician or patient care unit immediately.

| **EMERGENCY (STAT) TESTS** | **LABORATORY SECTION** | **Pneumatic tube station #** | **TAT** |
| --- | --- | --- | --- |
| **Acetaminophen** (Tylenol) | Clinical Chemistry | 21 | **1 hour** |
| Acid Fast Stain - Direct on Sputum (do not send ETT) | Microbiology  | 23 | ND\* |
| **Acute Stroke Coagulation Panel includes PT, APTT** | Hematology | 21 | **30 mins** |
| Albumin  | Clinical Chemistry | 21 | ND |
| Ammonia (on ice) | Clinical Chemistry | Do not tube | 1 hour |
| B-type natriuretic peptide (BNP) | Clinical Chemistry | 21 | 1 hour |
| β-hydroxybutyrate | Clinical Chemistry | 21 | 1 hour |
| Bilirubin | Clinical Chemistry | 21 | 1 hour |
| **Blood Gas Analysis** | Hematology | Do not tube | **30 mins** |
| Blood urea nitrogen (BUN) | Clinical Chemistry  | 21 | 1 hour |
| **Calcium** | Clinical Chemistry  | 21 | **1 hour** |
| **Calcium, ionized** | Hematology | Do not tube | **30 mins** |
| **Carbamazepine** (Tegretol) | Clinical Chemistry | 21 | **1 hour** |
| **Carbon Dioxide** (Electrolytes) | Clinical Chemistry | 21 | **1 hour** |
| Cell count |  |  |  |
|  (CSF & body fluids with diff) | Hematology | Do not tube | ND |
| Chloride (Electrolytes) | Clinical Chemistry | 21 | 1 hour |
| **Complete Blood Count**  |  |  |  |
|  (WBC, RBC, HGB, HCT, RBC indices & PLT) | Hematology | 21 | **45 mins** |
| **Cooximetry** | Hematology | Do not tube | ND |
| Cortisol | Clinical Chemistry | 21 | 1 hour |
| COVID-19 | Microbiology | Do not tube | ND\* |
| Creatinine | Clinical Chemistry | 21 | 1 hour |
| Crossmatch | Blood Bank | 100 | ND |
| Cryptococcal Antigen (CSF only ) | Microbiology  | Do not tube | ND |
| **Digoxin** | Clinical Chemistry | 21 | **1 hour** |
| **Dilantin** (Phenytoin) | Clinical Chemistry | 21 | **1 hour** |
| Direct Antiglobulin (Coombs) | Blood Bank | 100 | ND |
| Electrolytes |  |  |  |
| Serum/Heparinized plasma | Clinical Chemistry | 21 | 1 hour |
| **Ethanol** | Clinical Chemistry | 21 | **1 hour** |
| Ethylene glycol | Clinical Chemistry | 21 | ND |
| **Fibrinogen** | Hematology | 21 | **1 hour** |
| **Gentamicin** | Clinical Chemistry | 21 | **1 hour** |
| **Glucose, fasting or random** (serum, plasma) | Clinical Chemistry | 21 | **1 hour** |
| **Glucose**, CSF | Clinical Chemistry | Do not tube | **1 hour** |
| Gram Stain | Microbiology  | Do not tube | ND |
| HCG (β-HCG) | Clinical Chemistry | 21 | 1 hour |
| HIV-1/2 Ab/Ag Combo(for location 6C ONLY) | Microbiology  | 21 | ND |
| Influenza A and B, RSV RNA by PCR | Microbiology | 23 | ND |
| Iron | Clinical Chemistry | 21 | 1 hour |
| **Lactate** (on ice) | Clinical Chemistry | Do not tube | 1 hour |
| **Lithium** | Clinical Chemistry | 21 | **1 hour** |
| **Magnesium** | Clinical Chemistry | 21 | **1 hour** |
| Malaria Smear | Microbiology | 23 | ND |
| Metabolic Panel, Basic | Clinical Chemistry | 21 | 1 hour |
| **Osmolality** (serum, urine) | Clinical Chemistry | 21 | **1 hour** |
| **Partial Thromboplastin Time, Activated** (APTT) | Hematology | 21 | **1 hour** |
| **Phenobarbital** | Clinical Chemistry | 21 | **1 hour** |
| **Phenytoin** (Dilantin) | Clinical Chemistry | 21 | **1 hour** |
| **Phosphorus** | Clinical Chemistry | 21 | **1 hour** |
| **Potassium** (Electrolytes) | Clinical Chemistry | 21 | **1 hour** |
| Pregnancy test (urine) | Clinical Chemistry | Do not tube | ND |
| Protein, CSF Screen | Clinical Chemistry | Do not tube | ND |
| **Prothrombin Time** (PT) | Hematology | 21 | **1 hour** |
| **Salicylate (Aspirin)** | Clinical Chemistry | 21 | **1 hour** |
| **Sodium** (Electrolytes) | Clinical Chemistry | 21 | **1 hour** |
| Strep Group A Antigen (Throat Swab) | Microbiology | 23 | 1 hour |
| Troponin | Clinical Chemistry | 21 | 1 hour |
| Type and Screen | Blood Bank | 100 | **45 mins** |
| Uric Acid | Clinical Chemistry | 21 | 1 hour |
| Urinalysis ED- Special urine vacutainer- OK to tube | Hematology | OK to tube, 21 | 1 hour |
| Urinalysis in UA Screw cap cup - Do not tube, leak hazard | Hematology | Do not tube | ND |
| **Valproic Acid** | Clinical Chemistry | 21 | **1 hour** |
| **Vancomycin** | Clinical Chemistry | 21 | **1 hour** |

|  |
| --- |
| \* ND = Not Defined |

**Critical Tests**

| **Critical TEST** | **LABORATORY****section** | **TAT** **(Receipt – Result)** | **TAT****(Order – result)** |
| --- | --- | --- | --- |
| **Intraoperative Parathyroid Hormone**(notify Lab one day prior to testing) | Clinical Chemistry | 30 mins | 45 mins |
| **NOTE:** **DO NOT TUBE;** these samples must be hand-delivered to the Laboratory, with verbal notification of their arrival to processing staff to ensure appropriate processing. |
| **Rapid Creatinine, whole blood**(ED/CT/IR) | Clinical Chemistry | 10 mins | 25 mins |
| **NOTE:** **DO NOT TUBE;** these samples must be hand-delivered to the Laboratory, with verbal notification of their arrival to processing staff to ensure appropriate processing. |
| **TEG Trauma**(ED/OR) | Hematology | 30 mins (receipt to start of testing) | 1 hour |

CRITICAL TEST RESULTS / Values

Critical results will be given directly to the requesting or responsible licensed care giver (physician, RN, PA, NP) or authorized Health Center contact. If the critical value or result has to be passed on to the ordering or responsible provider who can initiate appropriate action, he/she should be notified within 1 hour from verification of the result (see Hospital Policy on Communication and Documentation of Critical Results).

(**Note:** There may be some delay between submission of a routine specimen and telephone notification, as the abnormal result may be identified only after the entire analytical run has been completed and reviewed.)

| **Constituent** | **Conventional Units** |
| --- | --- |
| Acetaminophen | > 50 | mg/L |
| Bilirubin, Total or Direct neonate < 30 days old  | > 20.0  | mg/dL |
| *Blood Gases, Arterial* |
| pH | < 7.20 or > 7.55 |
| PCO2 | < 25 or >65 | mm Hg |
| PO2 | < 40 | mm Hg |
| PO2, neonatal | < 40 or >100 | mm Hg |
| *Blood Gases, Venous* |  |  |
| pH | < 7.20 |  |
| PCO2 | > 75 | mm Hg |
| *Blood Gases, Infant, Capillary* |
| pH | < 7.20 or > 7.55 |
| PCO2 | < 25 or >65 | mm Hg |
|  Base Deficit | > 10 | mmol/L |
| *Blood Gases, Cord (Cord Venous and Cord Arterial)* |
| pH | < 7.0 |
|  Base Deficit | > 10 | mmol/L |
| Calcium | < 6.5 or > 13.5 | mg/dL |
| Calcium, ionized | < 0.8 or > 1.55 | mmol/L |
| Carbamazepine | > 15 | mg/L |
| *Cooximetry* |  |  |
| Carboxyhemoglobin | > 14.9 | % |
| Methemoglobin | > 14.9 | % |
| CO2 Total | < 15 or > 40 | mmol/L |
| Digoxin | > 2.0 | ug/L |
| Ethanol \* | > 400 | mg/dL |
| Fibrinogen | < 75 | mg/dL |
| Gentamicin | > 12.0  | mg/L |
| Glucose, CSF | < 30 or > 300 | mg/dL |
| Glucose | < 50 or > 500 | mg/dL |
| Glucose for neonates | < 50 or > 200 | mg/dL |
| Hemoglobin | < 7 or > 20 (>30days) < 7 or > 21.5 (8-30 days) < 7 or > 22.5 (0-7 days)  | g/dL |
| Lactate | >3.9 | mmol/L |
| Lidocaine | >6.0 | ug/mL |
| Lithium | > 2.0 | mmol/L |
| Magnesium | < 1.0 or > 4.5 | mg/dL |
| Osmolality  | < 240 or > 320 | mOsm/kg |
| Phenobarbital | > 50 | mg/L |
| Phenytoin (Dilantin) | > 35 | mg/L |
| Phosphorus | < 1 | mg/dL |
| Platelets | < 25 or ≥ 1000 | K/uL |
| Potassium | < 3.0 or > 6.0 | mmol/L |
| PT INR | > 5.0 |  |
| PTT | ≥ 69.0 | sec |
| Salicylate | > 35 | mg/dL |
| Sodium | < 125 or > 155 | mmol/L |
| Valproic Acid | > 150 | mg/L |
| Vancomycin | > 80  | mg/L |
| WBC\*\* | < 1.5 > 100 | K/uL |

\* As requested by the Emergency Department, critical ethanol results are not called.

\*\* For each patient, only the first critical WBC every 30 days will be reported by telephone

For each patient unusual or potentially life-threatening microbiological findings will also be reported immediately by telephone, including positive cultures from blood, CSF, or other normally sterile body fluids.

Blood Bank will call immediately whenever there are delays expected in release or unavailability of blood components, or in case a transfusion reaction work-up suggests a serious adverse effect such as hemolysis, sepsis or transfusion-related acute lung injury (TRALI).

Laboratory staff who report results for critical tests or critical values verbally or by telephone will request “read-back” from the receiving party and will provide confirmation that the results were read-back accurately in accordance with Joint Commission’s *National Patient Safety Goal on effectiveness in communication among care givers*.