Click on a link below to see those critical values/results
Blood Bank, Chemistry, EKG/ECHO, Hematology, Microbiology, Respiratory, Therapeutic Drugs

PURPOSE
To provide guidelines for the timeliness of reporting diagnostic critical results to the licensed healthcare provider that can take action on the results.

DEFINITIONS
1. A physician/designee - is the on-call physician, physician assistant, nurse practitioner or physician office nurse who has been permitted to accept the results immediately and relay to the ordering physician.
2. Critical Value/Results – These are tests that have a defined upper or lower limit panic or critical value or a critical finding that could significantly impact a patient’s well-being. These are generally considered to be the initial first-time diagnostic results that are considered to be immediately or potentially life, limb or organ threatening, thus requiring an urgent response.

POLICY
Critical values/results are to be reported to the physician/designee within 60 minutes of being resulted.

PROCEDURES
Laboratory:
1. Laboratory personnel will immediately call the nurse responsible for the patient upon the identification of all critical values/results. (OLOL Critical Values List)
2. The laboratory technologist will ask the nurse to read back the results to verify that they were understood correctly.
3. Lab personnel will record the nurse’s first and last name, time and read back.
4. The nurse will initiate action based on existing protocols/orders or contact the physician/designee within 60 minutes of receipt of the critical result.
5. The nurse will ask the physician/designee to read back the results to verify that they were understood correctly.
6. The nurse will document in the medical record the test results received, the time the physician/designee was notified, the read back of values/results and the orders received or the actions taken per protocol/orders.
7. When the patient’s test results remain within the Critical Value range within a 48 hour period the results are not called, unless requested by a physician. These results are documented with the statement indicating results match previous test results. However, when a significant change in the patient’s test results occurs within 48 hours the results are called.
Critical Radiology Results
1. The radiologist will communicate critical results to the ordering physician/designee.
2. The radiologist will ask the physician/designee to read back the results to verify that they were understood correctly.
3. The radiologist will document in the procedure report the person and the time of notification.

Critical Respiratory Results
1. The Respiratory Therapist will report critical respiratory results to the physician/nurse.
2. The Respiratory Therapist will either directly hand the results or phone the results to the physician/nurse.
3. When phoning results, the therapist will ask the physician/nurse to read back the results to verify that they were understood correctly.
4. The Respiratory Therapist will document, in the medical record, the time of notification, read back of results and who was notified.

Critical EKG and Echocardiograms Results
1. When EKG results are obtained that match the defined critical values (OLOL Critical Values List) it is to be immediately logged on the sheet(s) provided on each EKG machine in the hospital.
2. In the clinic setting the staff will immediately notify the physician and document in the EMR.
3. The EKG tech will show the EKG to the patient’s unit charge nurse, logging the time of notification.
4. The charge nurse is then responsible for immediately notifying the attending physician or patient’s cardiologist, of the critical results.
5. The nurse will document in the medical record the EKG results, time the physician/designee was notified, and whether physician orders were received.
6. Any orders received will be read back to the physician/designee for verification.
7. Critical EKG values are to be communicated to the physician immediately, maximum of 15 minutes from completion to relay of information.
8. If after two attempts, the ordering physician or designee can not be reached, a MET should be initiated.
9. If the patient exhibits acute symptoms, a code should be initiated while the call is being placed to the physician.

Approved by:

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Terrie P. Sterling, Executive Vice President/COO
**Critical Values / Results List** - These are minimum guidelines. Situations, which do not fit these criteria, but may reasonably be interpreted as critical situations, are to be handled the same as above.

**Hematology Lab:**
1. WBC less than 1000 or greater than 80,000/ul
2. Hemoglobin less than 6 gm/dl
3. Platelets less than 20,000 or greater than 1,000,000/dl
4. Differential with Blasts
5. Prothrombin INR greater than 6.0
6. Fibrinogen less than 100 mg/dl
7. PTT’s of greater than 100 seconds if it has been more than 24 hours since the last critical (greater than 100) has been called.
8. All PTT’s of greater than 300

**Chemistry Lab:** (Adult- Alarm value if not matched within 2 days)
1. Calcium less than or equal to 6.5, or greater than or equal to 12.0 mg/ dl
2. Sodium less than or equal to 120, or greater than or equal to 160 mEq/ dl
3. Potassium less than or equal to 2.5, or greater than or equal to 6.0 mEq/ dl
4. CO2 less than or equal to 14, or greater than or equal to 42 mmol/ L
5. Glucose less than or equal to 50, or greater than or equal to 400 mg/ dl
6. BUN greater than or equal to 100 mg/ dl
7. Lactic acid greater than or equal to 4.0 mmol/L
8. Troponin greater than 0.30 ng/mL

**Neonates Only** (0-29 days)- Bilirubin greater than or equal to 15.0 mg/dl

**Reactive Infections Disease Tests:** (positive results)
1. HIV Antigen/Antibody Combo
2. Hepatitis A - IgM Antibody

**Therapeutic drug critical values**
1. Acetaminophen greater than 70 microgram/ ml
2. Amikacin trough greater than 35 microgram/ ml
3. Carbamazepine greater than 20 microgram/ ml
4. Digoxin greater than 2.5 ng/ ml
5. Gentamicin trough greater than 12 microgram/ ml
6. Lithium greater than 2.0 meq/ l
7. Phenobarbital greater than 60 microgram/ ml
8. Phenytoin greater than 40 microgram/ ml
9. Salicylate greater than 40 mg/ dl
10. Theophylline greater than 25 microgram/ ml
11. Tobramycin greater than 12 microgram/ ml
12. Tricyclics greater than 500 microgram/ ml
13. Valproic Acid greater than 200 microgram/ ml
14. Vancomycin trough greater than 25 microgram/ ml

**Microbiology Lab (positive results)**
1. Blood cultures
2. Any CSF findings
3. Respiratory AFB direct Smears
4. Probe and/or culture for M. tuberculosis

**Blood Bank - Serology Results (positive results)**
1. Mycoplasma Pneumoniae
2. Reactive Spinal Fluid VDRL
3. Cryptococcal Antigen (CSF)

**Respiratory Therapy**
**Blood gas values falling outside the noted values below.**
1. pH less than 7.25 or more than 7.60
2. pCO\(_2\) less than 20mmHG or more than 60mmHG
3. pO\(_2\) less than 50 mmHG

**Electrolyte values falling outside the noted values below.**
1. Potassium (K\(^+\)) less than 2.5 or greater than 6.5meq/l. For a Same Day Surgery patient, K\(^+\) greater than 5.0 on patients requires notification of the patient’s nurse or physician.
2. Ionized CA\(^{++}\) less than 2.5 or greater than 6.8mg/ dl
3. Na\(^+\) less than 120 or greater than 155meq/l
4. Glucose less than 50 or greater than 400mg/dl

**EKG and ECHO (as determined by Cardiology)**
1. Acute Myocardial Infarction
2. Heart Rate of 40 beats per minute or less for any reason
3. Sustained Ventricular Tachycardia
4. 2\(^{nd}\) (Type II only) or 3\(^{rd}\) degree Heart Block
5. Atrial Fibrillation with ventricular rate greater than 120/minute