
NORMALIZING CRITICAL LAB VALUES IN THE ICU

Purpose:

To provide a protocol for notification of critical patient test results. Each department is responsible for ongoing assessments and to identify and implement a process, as needed, for the reporting of critical values.

To provide a protocol for notification of critical lab values in patients with normalizing critical lab.

Definitions:

Normal: A test result that is within the normal variation and does not require follow-up.

Non-Critical: A test result that is beyond the normal variation and that:

- A. Is not what is expected due to the patient's current medication and/or disease state,
- B. May require follow-up to ensure stability, resolution, or further evaluation and/or
- C. May change the medical management of that patient.

Critical: A test result beyond the normal variation with a high probability of a significant increase in morbidity and/or mortality in the foreseeable future and requires rapid communication of results for determination of intervention.

Normalizing Value: A test result that is in the critical range but returning to within normal limits. Patients shall be receiving treatment to address disease state causing such critical lab value.

Read Back: The individual accepting the critical test result must record and then read back the critical test result, in its entirety, to the reporter at the time the result is given.

Communication Tools:

Electronic: including Laboratory Information System (LIS), Radiology Information System (RIS), Pictorial Archival Computer (PAC) System,

Hospital Information System (HIS)-Invision, NetAccess (view only version of the HIS) Witt, and Cardiology Information System (Muse), facsimile machine.

Manual: including the manual processing and delivery via pneumatic tube system, hand delivery or pick up to/by the testing area, patient care area or physician.

Verbal: including verbal report in person or by telephone, contacted through beeper system or overhead page.

Order of Notification:

- A. Ordering Physician or their designee, Attending Physician or their designee:
 - Inpatient-the RN
 - ACD (Ambulatory Care Department) or Therapeutic Radiology-the RN or LPN, and after operating hours, MD on call for the ordering service.
 - Operating Room-RN or Perfusionist (CCP)
- B. MD on call for the service which ordered the test, beginning with "first call" proceeding up through the attending staff physician.
- C. Chief of Service
- D. Administrative House Manager
- E. Administrator on call

Normalizing Critical Lab Values

- A. The MD may write an order to indicate normalizing lab value and set set range to be notified.

Receipt of Notification: Refer to Nursing Policy N-43 and ACD-Ambulatory Care Division Policy C 80.1

Policy:

Each department reporting critical values must have in place a defined process which documents the reporting of pre-approved critical values.

Process Examples:

Examples of the process include, but are not limited to, Cardiopulmonary Services, Echo, Clinical Laboratory and Radiology/Breast Imaging.

Normal/Non Critical Test Results Reporting and Documentation

Cardiopulmonary Services

Results are sent to HIS/Misys via Radiance

Echo

The assigned Cardiology Fellow/Attending completes the Echo Report Form which is saved in the departmental filing system with a copy being sent to the patient record. The images are saved in the Witt (archival viewing system).

Clinical Laboratory

Results are reported in HIS via LIS

Radiology/Breast Imaging

Results are reported in the HIS via RIS or can be viewed at the PAC station. Both the image(s) and report are archived, when applicable, in the PAC system.

Critical Test Results Reporting and Documentation

Cardiopulmonary Services

1. When a critical result is identified, the Cardiopulmonary staff member performing the test will contact the ordering physician or their designee within 15 minutes of test readiness. The name and credentials of the person the value was reported to will be entered into the ABL 800 series blood gas analyzer and sent to the LIS via Radiance. Documentation includes: the person who received the report along with their credentials, and acknowledgement of a "read back".
2. If the ordering physician or their designee does not respond within 15 minutes of test readiness, the Cardiopulmonary shift supervisor is notified. The shift supervisor will follow the order of notification.
3. If the lab result is normalizing the MD may wish to write an order to accept normalizing value and give set range for notification.

Echo

1. When a significant abnormality is identified, the Cardiac Sonographer contacts the assigned Cardiology Fellow or Attending within 15 minutes via phone, beeper, or overhead page system.
2. If the assigned fellow/attending does not respond within 15 minutes of the initial notification attempt, the ordering physician or their designee is contacted via the phone, beeper, or overhead page system within 15 minutes.
3. If the ordering physician or their designee does not respond within 15 minutes, the Cardiac Sonographer will follow the order of notification.
4. The ECHO report form is completed by the Cardiology Fellow or Attending which is saved in the departmental filing system with a copy being sent to the patient record. Included in the report is the person receiving the report and the date/time it was received. The images are saved in the Witt archival viewing system.

Clinical Laboratory

1. When a critical result is identified, the Laboratory Technologist contacts the ordering physician or their designee within 15 minutes of test readiness via a phone call, beeper, or overhead page system. The result can be accessed in the HIS. Included in this report is the name of the notifying technologists, the person receiving the report along with their credentials, the time of reporting and acknowledgement of a "read back".
2. For the patient who is no longer in the hospital or clinic, the Laboratory Technologist contacts the ordering physician or designee within 15 minutes of test readiness.

If the ordering physician or their designee is not reached within 15 minutes of test readiness, the Laboratory Technologist will follow the order of notification.

3. If the lab result is normalizing the MD may wish to write an order to accept normalizing value and give set range for notification.

Radiology/Breast Imaging

1. When the radiologist identifies a critical test result, a verbal report is given to the ordering physician immediately in person or by phone.

2. If the ordering physician is not available, the radiologist immediately contacts their designee and a verbal report is given in person or by phone.
3. If their designee could not be reached, the radiologist will immediately follow the order of notification.
4. The result is reported in the HIS via RIS and includes the name and credential of the receiver of the critical test result. The image(s) and the report are archived, when applicable, in the PAC system.
5. If the lab result is normalizing the MD may wish to write an order to accept normalizing value and give set range for notification.

System Failures:

Cardiopulmonary

With any applicable communication system failure, the Cardiopulmonary staff member will give an in person verbal report of the critical test to the ordering physician or their designee. Documentation will continue in the analyzer as stated previously.

Echo

With any applicable communication system failure, the Cardiac Sonographer will give an in person verbal report of the significant abnormalities to first: Cardiac Fellow or Attending; Second: ordering physician or their designee. The Cardiac Sonographer will document the name and credentials of the person receiving the report with the method of reporting and time of delivery.

Clinical Laboratory

With any applicable communication system failure a hard copy of the critical result will be delivered to the ordering physician or their designee. The Laboratory Technologist will document the name and credentials of the person receiving the report with the time of delivery in LIS.

Radiology/Breast Imaging

1. With any applicable communication system failure, the radiologist will give an in person verbal report to the ordering physician or their designee including this information in the final report.
2. In the event that the PAC system fails, the Radiology Department will revert to films, recording the critical result on the film and

delivering the marked film to the ordering physician or their designee and include this information in the final report.

References:

Nursing Policies

- D-44: Drugs/Medication Administration
- N-25: Nurses 24-Hour Patient Progress Report/Plan of Care
- P-12: Patient History and Discharge Record

Hospital Policies:

- 5.30 Reporting of Laboratory Critical/Non-Critical Test Results
- 6.13 Verbal and/or Telephone Physician's Orders
- 8.13 Automated Control of Medications
- 8.6.1 Standard Administration Times