Policy Statement	The Department of Pathology maintains a system of communication of life threatening or life altering test result information as described in this procedure.
Purpose	The Department of Pathology maintains and publishes a list of Alert Values as part of the process to ensure the reporting of critical patient results to the responsible caregivers. This policy reflects accreditation standards regarding the verification and communication of life threatening or life altering information.
Scope	This policy applies to the communication of all alert values results generated in the Department of Pathology.
Responsibility	The establishment of appropriate alert values originates with the Medical Director of the respective Laboratory sections and the Saint Agnes Medical Staff. The supervisor of each section ensures that electronic alert value flags are set in Meditech. The Core Lab Charge Technologist or designee monitors the Alert Notification System and provides follow up for outliers. Technical associates are responsible for initiating the Alert Notification process by communicating the result to the patient care area. Patient care areas are responsible for communicating and documenting the alert value to the Licensed Independent Provider in a timely manner.

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Definitions

- **Alert Value** – a test result that in and of itself may indicate a potentially dangerous or life-threatening situation of imminent nature. An alert value is also known as a critical value. This also includes results that would indicate infectious disease precautions are required.
- **Imminent Nature** – indicates significant patient harm may occur within a period of twelve hours if intervention is not initiated.
- **Licensed Independent Provider (LIP)** – a physician, nurse practitioner, physician assistant, CRNA or other State authorized LIP
- **Alert Notification System** – an application in Meditech which tracks all hospital alerts. This system provides a means to document that alerts have been generated and reviewed by the appropriate persons.
- **Timely Response** – physician notification and acknowledgement within 60 minutes of alert value verification

Laboratory Notification of an Alert Value

Upon obtaining an alert value in a single process, the technical associate performing the analysis will notify the Team Leader of the specified patient care area. The technical associate will notify the patient care area via SmartWeb. The message used in the SmartWeb system should be written as "Check alert on *patient name* in *room number.*" Any exceptions to this can be found in the pertinent assay procedure. In the event that the SmartWeb system is non-functional, all notifications should be made by telephone. A "read-back" is required, including the patient name, test name, and result to the technologist placing the call. The technologist will document that the notification was completed in Meditech. Documentation should be completed with a canned comment that states the time of the notification and the location to which the page was sent. The canned comments "CALD" and "SMART" should be utilized with each alert result. The technologist must add the location that was notified along with the canned comment. Telephone communications must include first and last name of the person receiving the alert notification. Alert value notification is most valuable when the condition of the sample is satisfactory. Any sample condition, demonstrating lipemia, hemolysis, icterus or any other less than satisfactory condition must also be noted when communicating an alert value and documented in the comment field. The process of result verification transmits the alert value to the Alert Notification System. Non-technical laboratory associates are not permitted to communicate alert value results in any form for the primary communication.

Nursing Documentation of an Alert Value

Upon notification of an Alert Value the nurse must do the following:

1. Look up the lab result in Meditech.

2. Determine if the patient is on any protocols or if the result is an expected finding.
3. If the alert value is an expected finding, or the patient is on a protocol, document by: Opening the Alert Notification System, place a check next to the patient of concern, select Comment, enter PIN, select Y at Acknowledge, enter appropriate comment, and complete the process. Comments can include, for example:
    - Heparin protocol followed
    - Expected finding: patient on dialysis
    - Expected finding: monitoring _____ level
    - Expected finding: patient known diabetic-sliding scale insulin
    - Expected finding: give reason why
4. If the alert value is not expected, notify the physician or designated LIP (MD, PA NP or CRNA) within 60 minutes.
5. While waiting for the LIP to respond, take appropriate nursing interventions based on an assessment of the patient. For example, obtain vital signs, pulse ox, ensure patient IV. If the LIP does not respond immediately, begin documenting times of notification in the Alert Notification System. Do not acknowledge alert prior to speaking with the LIP.
6. Report the patient name and alert result to the LIP. Read back the name of the patient and any orders given from the LIP to ensure accuracy.
7. Provide required interventions and document as indicated.
8. Document the time you spoke with the LIP in the Nursing Notes and in the Alert Notification System:
    a. Open the Alert Notification System, select Process.
    b. Place a check next to the specified patient, select Comment
    c. Enter PIN.
    d. Verify that the correct patient name appears on the screen.
    e. At the Enter/Edit Notification Comments screen, select “Y” at the Acknowledge drop down arrow button and add a comment in the window. The comment must state the last name and title (MD, PA NP, or CRNA) of the LIP and time the LIP was notified.

In emergent situations, the nurse may have informed the LIP of the alert, but not be able to make the acknowledgement within 60 minutes. In these cases, the nurse must document the initial LIP notification time in the Alert Notification System and in the Nursing Notes.

If a patient is not physically located in the patient care area, it is the responsibility of the unit receiving the page to notify the correct location of the alert.

Laboratory Documentation of an Alert Value for Discharged Patients, Outreach Outpatients & Nursing Home Residents

Upon the generation of an Alert Value the technologist must do the following:

1. Call the patient care area and request to speak to an LIP. If an LIP is not available, page the LIP/specified designee or ask the person on the phone if you can fax them the result. **Results cannot be given to a nurse or secretary.** Resources for finding LIP contact information include the Meditech Provider Dictionary, the Lab Outreach Provider list, SmartWeb and the hospital operator.
2. The LIP must verify the result. A “read-back” is required, including the patient name, test name, and result to the technologist placing the call.
3. The technologist must document the exchange, noting the time and name of the person (first and last) notified of the alert results. The canned comment FAXD should be used for any results that were faxed to the patient care area.
4. Verify result in Meditech.
5. Open the Alert Notification System, select Process.
6. Place a check next to the specified patient, select Acknowledge
7. Enter PIN.
8. Confirm the acknowledgement by selecting Yes

*Alert values for the client MEDLAB should be called to the MEDLAB Customer Service. Alert values for the client HOC can be given to the nurse caring for the patient.

Laboratory Documentation of Alert Values that are not tracked in the Alert Notification System

When calling alerts directly to the patient care area, the following procedure must be followed:

1. Notify the LIP of the alert value via phone or Smartweb.
2. The LIP must verify the result given by a required “read-back” of the patient name, test name, and result to the technologist placing the call.
3. The technologist must document the exchange, noting the time and name of the person (first and last) notified of the alert results.
4. Verify result in Meditech Laboratory.

Laboratory Documentation when the Primary Physician Cannot be Reached

If the ordering physician, or physician covering for the ordering physician, cannot be reached after a minimum of three attempts via phone and all other means of direct contact (i.e., answering service, office, and pager) have been exhausted; the steps listed below must be followed:

1. Gather all the patient demographics to provide to the LIP.
2. Call the Emergency Department (ED) and inform Charge Nurse that there is an outpatient alert value and the physician of record cannot be reached.

3. The Charge nurse must verify the result given by a required "read-back" of the patient name, test name, and result to the technologist placing the call.
4. The technologist must document the exchange, noting the time and name of the person (first and last) notified of the alert results.
5. Verify result.
6. If the result appears in the Alert Notification system:
    a. Open the Alert Notification System, select Process.
    b. Place a check next to the specified patient, select Acknowledge
    c. Enter PIN.
    d. Confirm the acknowledgement by selecting Yes.

Monitoring of the Alert Notification System

The laboratory will monitor the Alert Notification System throughout the day to ensure compliance and timely response.

- The Core Lab Charge Tech or designee of each shift will log in to the Process Notifications screen at the beginning of the shift and monitor the alerts regularly. The Alert Notification List will be displayed continuously on a monitor in the Core Lab.
- The Charge Tech will contact the patient's RN and inform them of any alert value notifications pending beyond 45 minutes.
- Alert values pending for 2 hours will be called or paged to the Team Leader and the Clinical Unit Coordinator/Nurse Manager.
- The Laboratory will attempt to make contact every hour with the appropriate Team Leader and Clinical Unit Coordinator/Nurse Manager until the alert value has been acknowledged once the 2 hour period has passed.
- The Charge Tech will document each contact made with a comment in the Alert Notification System. The Charge Tech should indicate the title and full name of the person that was contacted and the time of the notification.

The Charge Tech should not acknowledge any alerts classified inpatient unless they are accidentally unacknowledged with proper LIP and time documentation. Nurses having problems acknowledging should be referred to their Charge Nurse, Nurse Manager or On-Duty Nursing Supervisor.

Alert Notification Compliance Reporting

The Laboratory generates two types of reports in regards to the Alert Notifications.

1. Alert Turn-Around Time Report – a report that demonstrates the percent compliance with a timely response.
2. Alert Comment Report – a report that demonstrates the percent compliance with appropriate comment documentation.

Reports are distributed to the appropriate Nurse Managers for review.

Meditech Downtime

In the event that Meditech experiences downtime, all alerts will be called to the patient care areas. When calling alerts the following procedure must be followed:

1. Notify the patient nurse of the alert value via phone. A "read-back" of the patient name, test name, and result to the technologist placing the call.
2. The technologist must document the exchange, noting the time and name (first and last) of the person notified of the alert results.
3. The nurse must notify the LIP and document the notification in the Nursing Notes.
4. The Lead Technologist/Charge Technologist will acknowledge the results on the Alert Notification System once the system is functional.

Reference Laboratory Alerts

The communication of alert value results received from outside labs in the Core Lab is the responsibility of the technologist working in the referral testing area or the Charge Technologist during off shifts. In other laboratory sections, it is the responsibility of the technologist designated for that area, at the time when such a call is received. The technologist ensures that the results are communicated to the LIP. The technologist must document the exchange, noting the time and name of the person (first and last) notified of the alert results.

Alert values for testing performed by a reference lab are not included in the Alert Value List. The values will not appear in the Alert Value Notification System. Calls are initiated by receipt of a result, and handled as stated in the *Laboratory Documentation of Alert Values that are not tracked in the Alert Notification System* section of this policy.

Alert Value List

The Alert Value list consists of test values that relate to life-threatening conditions. All alert values received will be treated as described in the policy. Exceptions to general values by patient age, location or alert call requirement are preceded by a bullet (•).

Coagulation		
Assay	**Upper**	**Lower**
PT (INR)	6.0	None
aPTT-sec	100	None
Fibrinogen – mg/dL	None	100
HIT Assay (Also call pharmacy)	Positive	None
Hematology		
Assay	**Upper**	**Lower**
WBC K/uL	50.0	<2.0
• (0 – 18 yrs)	30.0	<3.0

HGB gm/dL	18.0	6.6
• (3m – 11 yr)	None	6.6
• (1 day – 3m)	22	<8.0
HCT - %	55	21
• (3m – 11 yrs)	None	21
• (1 day – 3m)	66	24
Platelet – K/uL	1000.0	25.0
• (0 – 18 yrs)	1000.0	50.0
Sickle Test • (no repeat call per admission)	Positive	None
Kleihauer-Betke	0.000	None
Malaria Smear	Positive	None
Special Immunology		
Hepatitis B Surface Antigen – Positive Hepatitis A Virus, IgM – Positive Hepatitis B Virus, IgM – Positive		Group B Strep by PCR - Positive
Point of Care		
Troponin I >0.40		
Chemistry		
Assay	**Upper**	**Lower**
Ammonia mmol/L	150	None
• neonate to 30 d	80	None
Calcium – mg/dL	13.9	6.0
Total CO_2 – mmol/L	50	12.0
Creatinine-mg/dL (>18 yrs)	8.0	None
• (0-18 yrs)	2.5	None
CRP (neonate to 30 d)	>5	None
Ethyl Alcohol - mg/dL	350	None
Free T4	>3.5	None
Glucose – mg/dL	400	40
• 30 d to 18 yrs	400	50
• neonate to 30 d	150	40
Ionized Ca – mmol/L	1.5	0.88
Troponin T	0.09	None
Lactate – mmol/L	5.0	None
Potassium – mmol/L • also notify pharmacy >6.0 (if no hemolysis	6.0	2.8

Sodium – mmol/L	158	120
Magnesium – mg/dL	7.0	1.0
● (0 – 18 yrs)	4.0	1.0
Bilirubin – mg/dL Adult	None	None
● neonate to 30 d	>20	None
Osmo-serum- mOsm/mL	330	250
Phosphorus – mg/dL (>18 yrs)	None	1.0
● (0 – 18 yrs)	8.0	2.0
Total T3 – ng/dL	>300	None
Total Urine Protein (Called to 3100, 3400, WHC and OBC)	>300	None
Therapeutic Drugs		
Assay	**Upper**	**Lower**
Acetominophen mcg/mL	20	None
Amikacin mcg/mL – (peak/random)	30	None
Amikacin – trough	5	None
Carbamazepine – ug/mL	10	None
Digoxin – ng/mL ● also notifiy pharmacy	2.4	None
Free Phenytoin – ug/mL ● also notify pharmacy	2.5	None
Gentamicin – ug/mL (peak/random)	12	None
Gentamicin – trough	2	None
Phenobarbital – mcg/mL	40	None
Dilantin – mcg/mL	20	None
Procainamide - ug/mL	8	None
Procainamide+NAPA	28	None
Quinidine – mcg/mL	6	None
Salicylate – mg/dL	30	None
Theophylline – ug/mL ● also notify pharmacy	20	None
Tobramycin – ug/mL (peak/random)	12	None
Tobramycin – trough	2	None
Valproic Acid mcg/mL	100	None
Vancomycin mcg/mL (>18 yrs)	50	None
(0 – 18 yrs)	40	None
Peak or random (0 – 18 yrs)	40	None
Vancomycin Trough (>18 yrs)	20	None
(0 – 18 yrs)	10	None

Lithium – mmol/L	1.5	None
Blood Gas		
Assay	**Upper**	**Lower**
Arterial Blood Gas Panel/ Adult		
• pH	7.55	7.2
• pCO2	60	19
• tCO2	40	11
• HCO3	40	10
• pO2	None	50
• O2sat	None	85
Arterial Blood Gas Panel / 0-28 days old		
• pH	7.55	7.2
• pCO2	50	19
• pO2	None	50
Venous Blood Gas Panel		
• pH	None	7.2
• O2sat	None	60
Cord Arterial / Venous Blood Gas Panel		
• pH	None	7.2
Carboxyhemoglobin Profile		
• tHb	None	<7
• OxyHb	None	<83
• CoHb	>15	None
• MetHb	>10	None
Microbiology		
Beta Strep Group A isolated from a wound or tissue specimen		
Escherichia coli O157:H7		
Shiga toxin – positive		
Cryptococcal Antigen – positive		
Blood cultures – positive		
Cerebrospinal Fluid smears and cultures – positive		
Sterile Body Fluids smears and cultures – positive (Amniotic, Ascites, Bile, Knee and other joints, Paracentesis, Pericardial, Peritoneal, Pleural, Synovial and Thoracentesis)		

The following **Anatomic Pathology Critical Diagnoses** warrant immediate attention. The pathologist is to contact the attending physician by phone and to document electronically, noting the date and time of call and name of the physician notified of the alert results. In the event an attending physician cannot be contacted the report will be faxed to the physician's office with confirmation of receipt by follow up phone call.

Anatomic Pathology
Malignant Diagnoses Unexpected diagnosis of malignancy **Discrepant Findings** • Significant disagreement between frozen section and final diagnoses, if clinically indicated. • Significant disagreement between initial and final FNA diagnosis, if clinically indicated. • Significant disagreement and/or change between diagnoses or primary pathologist and outside pathologist consultation (at the original of consulting institution), if clinically indicated. **Infections** • Bacteria of fungi in cerebrospinal fluid cytology in immunocompromised or immunocompetent patients. • Pneumocystis organism, fungi, or viral cytopathic changes in broncholaveolar lavage, bronchial washing, or brushing cytology in immunocompromised or immunocompetent patients • Acid-fast bacilli in immunocompromised or immunocompetent patients • Fungi in FNA specimen of immunocompromised patients • Bacteria in heart valve or bone marrow • Herpes in Papanicolaou smears of near-term pregnant patients • Any invasive organism in surgical pathology specimens of immunocompromised patients. **Others** • Uterine contents without villi or trophoblast • Fat in endometrial curettage specimens

Related Documents
LADM 6005 J Laboratory Alert Documentation
LADM 6005 Ja Alert Notification – Nursing Job Aid
LADM 6005 Jb Acknowledging an Alert in Meditech – Lab Job Aid