Emergency Management and

Business Continuity Plan

Pathology, Lab and Transfusion Services

# <insert logo here>

Emergency Management and

Business Continuity Requirements

**Pathology & Laboratory Services is a mission critical department requiring the continuity or immediate recovery of services and processes.**

# Mission Critical Processes and Applications

**RECOVERY TIME [Immediately required for hospital operations 0-2 Hours]**

|  |  |  |
| --- | --- | --- |
| **PROCESS** | **APPLICATION** | **DOWNTIME POLICY** |
| Provide compatible blood products (whole blood, packed cells) |  | See Sunquest Downtime Procedures and Forms  |
| Urinalysis | Sunquest |
| Chemistry - basic electrolytes and glucose | Sunquest |
| CBC - white count, hemoglobin/hematocrit, platelets | Sunquest |
| Prioritize specimens and stabilize for future testing |  |

**RECOVERY TIME [2-12 Hours]**

|  |  |  |
| --- | --- | --- |
| **PROCESS** | **APPLICATION** | **DOWNTIME POLICY** |
| Point of Care Testing |  | See Sunquest Downtime Procedures and Forms  |
| Receiving and Processing Orders | Sunquest |
| Specimen Collection |  |
| Specimen Testing | Sunquest |
| Provide Lab Results | Sunquest |

**RECOVERY TIME [12-24 Hours]**

|  |  |  |
| --- | --- | --- |
| **PROCESS** | **APPLICATION** | **DOWNTIME POLICY** |
| Pathology Services | Powerpath, Dictation | See Sunquest Downtime Procedures and Forms  |
| Microbiology Services | Sunquest |
|  |  |
|  |  |
|  |  |

# Continuity Procedures

## Following an event that impacts your department and/or your operations, consider the following:

* Round on patients
* Facilitate physician’s orders
* Identify critical operation points, functions or skills necessary for continuity of operations (e.g., management staff; specific levels of expertise, training or experience; recording or documentation requirements; health and safety concerns)
* Assess need to close department and/or relocate services
* Update Hospital Command Center (HCC) regarding department status, including resource needs, closure requirements and staffing shortages
* Plan for service reduction based on need, critical nature of service and recovery times in plan
* Communicate with incident command, all interdependent departments and other affected services regarding status and strategies for continuity/recovery
* Provide written notification to employees regarding status and strategies for continuity/recovery for the duration of the event and compensation provisions, if feasible
* Document the duration of the event
* Track, record and report all expenses during and related to the event:
	+ Loss of revenue (i.e.: income the hospital will not receive due to interruption of care)
	+ Physical losses (i.e.: damage done to space and equipment)
	+ Fixed costs (i.e.: non-variable costs paid whether department is operating or not)
	+ Operating costs (i.e.: variable costs that may increase due to the event)
* Track, record and report all on-duty time for personnel who are working during the event.
	+ Establish and maintain documentation of all payroll activities
	+ Ensure records are accurate and complete.
	+ Keep time sheets on all staff (exempt or not)
	+ Provide instructions to all employees to ensure time sheets and travel expense claims are completed properly
	+ Ensure that time records, travel expense claims, and other related information are prepared and submitted to payroll
* Retain all invoices to ensure all costs are captured and attributable to the event
* Establish and maintain documentation of all purchasing activities
* Track costs for use of equipment purchased and leased during the event

# Laboratory Hazardous Materials Incident

## Minor release in the lab

* Follow lab eyewash, rinse, or shower procedures, as necessary.
* Flush affected area for 15 min
* Vacate persons in the immediate area if needed
* If the volume of the spill is greater than 50 ml, the Environmental Health &
* Safety office is to be called to assist or advise in clean up x34336
* Wear protective equipment
* Use appropriate kit to neutralize and absorb spill
* Collect, containerize and label waste
* Dispose of waste if appropriate volume or contact the Environmental Health & Safety office for proper disposal at extension 34336.

## Major release in the lab

* Call and report emergency to Environmental Health & Safety x34336
* Report your name, location, phone number, the material spilled and possible injuries
* Notify manager/supervisor
* Assist injured persons
* Isolate contaminated persons
* Avoid chemical exposure
* Close doors or control access to spill
* Communicate critical spill information to responders
* Follow instructions from Environmental Health & Safety office representatives

# Personnel Procedures

Employee Checklist

* Report to your department
* Bring/Wear ID Badge at all times
* Receive assignment from Department/Unit Manager
* Report to Labor Pool at the direction of Department/Unit Manager
* Prepare to stay/sleep at the Medical Center and bring the following: Bottled Water
* Toiletries
* Flashlight
* Personal Medications
* Change of Clothing

## Following an event that impacts your department and/or your personnel, consider the following:

* Evaluate immediate and ongoing staff needs based on existing and predicted levels of human resources available
* Activate your call list
* Notify Employees: communicate event impact, estimated duration and location/time/frequency of updates
* Determine staff availability
* Notify human resources, managers, union representatives and other key personnel as to status and plan implementation
* Coordinate alternative staff resource options with human resources. If needed:
	+ Identify similar core competencies that exist
	+ Request staffing needs update from the labor pool to sustain essential functions
	+ Secure contract staff or borrow from another facility
	+ Cross train staff with similar competencies by educators
* Develop and implement contingency staffing schedules and Implement alternative staff resource options that may supplement staffing needs (i.e., runners)
* Use sign in and time reporting sheet to account for all staff and hours during incident
* Provide phlebotomy, laboratory and blood bank services as requested through the Hospital
* Communicates any restrictions of tests available
* Maintain an adequate blood supply.
* Serves as a resource to the ED by reporting any patterns of tests results
* Assign phlebotomists as requested to various treatment or holding areas.
* Establish a “critical” threshold for the following: O+, A+, and O- red cell products. See “Minimal Available Blood Inventory Level Algorithm” on next page if levels fall below this threshold.
* At the discretion of the Transfusion Medicine medical director, restrictions for the use of only leukocyte reduced and irradiated blood products will be waived to provide adequate blood products for transfusion.

**Level of Service (Testing and Products available)**

* NO ELECTRICITY: Slide ABO type, provide Packed Red Blood Cells (uncrossmatched) only. Turn-around time 30 minutes.
* EMERGENCY POWER ONLY: Type & Screen and Crossmatch testing, provide Packed Red Blood Cells (crossmatched) only. Turn around time 1 hour.
* POWER SUPPLY UNAFFECTED: Type & Screen and crossmatch testing, provide Packed Red Blood Cells (crossmatched), Fresh Frozen Plasma, Platelets, and Cryoprecipitate. Turn around time 1 hour.

ALTERNATE WORK OPTIONS

* Identify alternate work options available through “telecommuting” or other off-site possibilities as determined in departmental BCPs
* Assess flexible leave options that would allow employees to address family needs while continuing to support the employing organization through a flexible work plan
* Collaborate with EIS for remote access for staff performing mission critical processes

HEALTH AND SAFETY

* Evaluate potential health and safety issues with Environmental Health and Safety that might arise through diversion of staff to new job roles

FAMILY CARE PLAN

It should be assumed during a disaster that all employees might be needed. If staff must perform role at the medical center and requires care for dependents during the response, confirm with the Hospital Command Center that the Family Care Plan has been activated.

* Work with Environmental Services to set up space for over night arrangements
* Communicate with food services needs to accommodate staff staying overnight and working extra shifts

The Blood Bank could provide the following services at the indicated level of staffing. A minimum of 8 FTE’s needed.

|  |  |
| --- | --- |
| 75% Staff Available | * Full services for several days; postponement of elective procedures thereafter.
* Blood Donor Facility functions to continue, except non-essential pheresis procedures.
 |
| 50% Staff Available | * Postponement of all elective procedures.
* Emergency and normal provision of blood products for existing patients would continue.
* Blood Donor Facility would cease non-emergent operations, if blood were readily available from outside sources (e.g., Red Cross).
* If blood were not readily available, Blood Donor Facility functions would continue (routine blood collections would take precedence over pheresis procedures).
 |
| 25% Staff Available | * Only STAT blood needs would be provided.
* Frozen and washed red blood cells would not be available.
* Non-essential transfusions might be postponed.
* Blood Donor Facility collections of whole blood would continue, if blood were unavailable from outside sources.
 |

**BLOOD ALERT LEVELS**

Blood Alert **GREEN**: Inventories of all blood products in the Division of Transfusion Medicine at <insert hospital name here> are adequate to meet the needs of routine clinical operations of hospital services requiring blood products, without routine rationing. **(Action: None indicated)**

Blood Alert **YELLOW**: Inventories of any major type of blood product in the Division of Transfusion Medicine at <insert hospital name here> are or may become inadequate to meet the needs of routine clinical operations of hospital services requiring blood products without rationing, or the prediction with reasonable certainty that a shortage is eminent. High-utilization services may be contacted at the discretion of the Transfusion Medicine Medical Director. **(Action: evaluate demand and supply; be prepared to escalate if situation worsens)**

Blood Alert **RED**: Inventories of major types of blood products in the division of Transfusion Medicine at <insert hospital name here>, elsewhere in the region, and possibly in the nation are inadequate to meet the needs of routine clinical operations of hospital services requiring blood products. All orders for blood products are subjected to concurrent review by the attending Transfusion Medicine Pathologist and/or resident. Ordering physicians are contacted and asked to reduce or defer their use of blood products. Routine surgical procedures may be cancelled or postponed until after the situation is resolved. Emergency-only transfusion of blood products to patients of medical services may be implemented. Updates will be periodically communicated to the clinical areas. **(Action: Activate blood disaster/emergency procedures, including communication plan)**

**RECOVERY TIME [2-12 Hours]**

|  |  |  |
| --- | --- | --- |
| **PROCESS** | **APPLICATION** | **DOWNTIME POLICY** |
| Point of Care Testing | Telcor, LifeScan, Sunquest | See Sunquest Downtime Procedures and Forms  |
| Receive Orders/Processing | Sunquest |
| Specimen Collection |  |
| Specimen Testing (Chemistry, Hematology, Coag) | Sunquest |
| Provide Lab Results | Sunquest |

**RECOVERY TIME [Beyond 12 Hours]**

|  |  |  |
| --- | --- | --- |
| **PROCESS** | **APPLICATION** | **DOWNTIME POLICY** |
| Pathology Services | Powerpath, VoicePro dictation | See Sunquest Downtime Procedures and Forms  |
| Microbiology Services | Sunquest |
| Reference Laboratory Testing | Sunquest |

# Interdependencies

To perform mission critical processes, the department depends on the following internal and external services.

|  |  |  |
| --- | --- | --- |
| **INTERDEPENDENCY** | **SERVICE/PROCESS** | **ACTIONS IF SERVICE IS UNAVAILABLE** |
| Nursing Units | Referral orders for patients | * Direct communication with physician regarding orders
 |
| Pneumatic Tube System |  |  |
| Blood Centers/American Red Cross: Primary donor testing laboratory is the American Red Cross National Testing Laboratory (NTL), 12124 NE Ainsworth Circle, Portland Oregon, 97220, Phone (503) 253-9660. |  | * If NTL shuts down our back up laboratory is St. Louis NTL, 4050 Lindell BLVD, St. Louis, MO 63108, Phone (888) 881-4329.
 |
| Fisher Scientific |  |  |
| Bio Engineering |  |  |
| Pharmacy |  | * Transfusion Medicine Medical Director may consult with pharmacy for alternative drugs during drug shortages.
 |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# Mission Critical Equipment and Supplies

During activations, the department manager/designee will assess the availability of Equipment and Supplies and report the status to the Hospital Command Center (HCC) as requested. During this process the following steps will be taken:

* Inventory and document status of equipment and supplies
* Check condition of storage or onsite stockpiles to determine the level of damage, if applicable
* Create a resupply list
* Assess how long department can operate with available equipment and supplies
* Request assistance from HCC for Mutual Aid Agreement, if needed
* Backup instruments are available during equipment failure.
* Supplies also might be borrowed from other hospitals or from the American Red Cross.
* Maintain an adequate blood supply. Supplies would be conserved by limiting blood banking services to meet only essential and emergent needs.
* Notify the Command Center if any limitations are needed on the number of units ordered.

Additional notes:

| **MISSION CRITICAL EQUIPMENT AND SUPPLIES** |
| --- |
| **EQUIPMENT/SUPPLY ITEM** | **QUANTITY/PAR LEVEL** | **POST INCIDENT INVENTORY** | **GAP/AMTNEEDED** | **ACTIONS IF ITEM IS UNAVAILABLE** |
| **Immediate Need:** |  |  |  | * [Insert actions when item is unavailable]
 |
| Sysmex hematology instrument |  |  |  |  |
| Hematology instrument reagent |  |  |  |  |
| Urine dipsticks |  |  |  |  |
| Chemistry POC (iStat, EPOC) |  |  |  |  |
| POC chem cartridges (CG8) |  |  |  |  |
| Blood Cooler |  |  |  |  |
| O(-); O(+) packed cells or whole blood 4 units each |  |  |  |  |
| Thermometer |  |  |  |  |
| Blood typing and screening reagents |  |  |  | * Supplies for blood collection and for testing and crossmatching patient and donor bloods, generally, are available from a number of manufacturers.
 |
| Under counter sized refrigerator |  |  |  |  |
| Novo glucometers |  |  |  |  |
| Siemens/IRIS Urinalysis |  |  |  |  |
| Siemens chemistry analyzer |  |  |  |  |
| POM |  |  |  |  |
| ISTAT Chemistry Analyzer |  |  |  |  |
| Roche Urinalysis |  |  |  |  |
| **MISSION CRITICAL EQUIPMENT AND SUPPLIES** |
| **EQUIPMENT/SUPPLY ITEM** | **QUANTITY/PAR LEVEL** | **POST INCIDENT INVENTORY** | **GAP/AMTNEEDED** | **ACTIONS IF ITEM IS UNAVAILABLE** |
| **Immediate Need:** |  |  |  | * [Insert actions when item is unavailable]
 |
| Stago Coagulation |  |  |  |  |
| Sysmex Hematology CBC's |  |  |  |  |

| **MISSION CRITICAL EQUIPMENT AND SUPPLIES** |
| --- |
| **EQUIPMENT/SUPPLY ITEM** | **QUANTITY/PAR LEVEL** | **POST INCIDENT INVENTORY** | **GAP/AMTNEEDED** | **ACTIONS IF ITEM IS UNAVAILABLE** |
| **2-12 Hours:** |  |  |  | * [Insert actions when item is unavailable]
 |
| Chemistry instrument and reagents |  |  |  |  |
| Hematology Instrument and reagents |  |  |  |  |
| Coagulation Instrument and reagents |  |  |  |  |
| Transfusion Service instrument and products |  |  |  |  |
| Point of Care instrument and reagents |  |  |  |  |
| Phlebotomy Supplies |  |  |  |  |
| Processing Supplies |  |  |  |  |
| **Beyond 12 Hours:** |  |  |  |  |
| Pathology equipment and supplies |  |  |  |  |
| Microbiology equipment and supplies |  |  |  |  |

# Vendors/Resources Call List

| COMPANY | POINT OF CONTACT | PHONE NUMBER | EMERGENCY CONTRACT IN PLACE Y/N? |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# Mission Critical Vital Records

| **RECORD NAME** | **LOCATION** | **ALTERNATE BACK UP SOURCE** | **RECORD TYPE** **PAPER/ELECTRONIC** |
| --- | --- | --- | --- |
| Employee Files |  |  |  |
| Staff Call List |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# Staff Call List

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FIRST****NAME** | **LAST****NAME** | **JOB** **TITLE** | **SHIFT** | **EXTENSION** | **PAGER** | **HOME** | **CELL** | **ETA [mins]** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

Evacuation and Relocation Procedures

|  |  |
| --- | --- |
| All Laboratory and Pathology Staff except for Reproductive and Outpatient Lab |  |
| ReproductiveAnd outpatient laboratory |  |
|  |  |
|  |  |

* Take cover away from window glass or falling items
* Leave the building by the stairwells and meet at the designated meeting area (Cancer
* Center Parking Lot at the South West corner of Beverly Blvd and San Vicente intersection).
* Do not run or panic, stay calm. Refer to exit routes for your specific location.
* Stay at the designated meeting area until permission is given to re-enter the building given by the Anatomic Pathology person-in-charge.

In most situations, the person-in-charge will be the Anatomic Pathology Manager – <insert name here>. In the event the manager is off-campus, the chain of command is as follows:

* Supervisor: <insert name/s here>
* Team Leader: <insert name/s here>
* AP Safety Representative: <insert name here>

The manager or designee will contact Laboratory Administration and coordinate with the Hospital Command Center to determine how and where the exact location of relocation.

**Transfusion Relocation**

* Pack all type O red cells, Rh positive and Rh negative, in validated storage coolers following Transfusion Medicine SOPs. Platelet products, fresh frozen plasma, and cryoprecipitate may be packaged for relocation. (Most disasters do not require extensive use of platelets or plasma, and the need for these components can be evaluated by the Medical Director if special circumstances arise.)
* If the disaster requires moving the Hematopoietic Progenitor Cells (HCTP), the HCTP will be moved to California Cryo Bank. Call Cryo Bank at 310-443-5244.
* If the type of the disaster will compromise the storage conditions of the HCTP as to no longer meet the requirements for any transplantable Hematopoietic Progenitor Cells (HCTP), the Transfusion Medicine Stem Cell Staff is responsible for communicating the status of the HCT/P’s to the Medical Director. The Medical Director will notify the attending physicians.
* The Blood Donor Facility and the Apheresis Center maybe relocated to another area in the hospital where employees and non employees may be present for donations. This decision will be made by the Transfusion Medicine Medical Director. The team leaders shall be responsible for identifying needed equipment and staffing to support the move.
* As a last resort, in the event Therapeutic Apheresis Operations are still interrupted, patients/donors are prioritized based on patient acuity.
* Blood Donations will be performed using the Blood Mobile, if operational.
* The blood supply will be evacuated as determined by the Transfusion Medicine Team Leader or T.I.C., and coordinated with the Lab Unit Leader in Medical Center’s command. (This decision depends greatly on what type of disaster occurs, how badly the Medical Center is damaged, and whether outside agencies will be able to assist in providing blood).
* Place Type O Packed Red Blood Cells in large insulated coolers with blue ice refrigerant with a 12-hour cooling capacity. Approximately 25-30 units will fit in each cooler. There are at least 8 coolers available. Transfusion Service carts will be used to transport coolers to the designated evacuation area.
* Communicate need for assistance in packing or moving coolers to the Team Leader or T.I.C. to the Lab Unit Leader.
* If time and supplies permit, packed red blood cells of other blood types can be evacuated. (Type A’s first, then B’s and finally AB’s).
* Procurement of blood from outside suppliers will be initiated by the Team Leader or T.I.C. Needs will be communicated to the Lab Unit Leader, who will forward the request to the Medical Center Command Post. The Command Post has direct contact with the city of Los Angeles Disaster Command Center, which will contact our local supplier, Los Angeles Red Cross, or outlying suppliers in order to provide needed blood.
* In the event of unavailability of blood from outside sources, whole blood collection will be performed by available donor room staff.

EVACUATION TO AREA HAVING NO ELECTRICITY:

* A blood typing kit has been assembled for slide ABO typing with the capability of at least 200 tests is placed in the Transfusion Service (room 1665) at the TIC bench. Supplies, reagents, procedure sheet (form #TM 9037), Emergency Patient Transfusion tags (form # TM9036), and Emergency Patient Typing and RBC Disposition Form (form # TM9035) are included in the kit.
* A minimum of two persons are needed per team for blood typing and distribution of packed red blood cells in the worst-case disaster setting, where patients will be lined up in a triage area and typing would be done at the patient’s side.

Transfusion Medicine personnel will do the testing and allocate the blood. Other personnel may be needed to assist in moving the blood. The Transfusion Medicine Supervisor or T.I.C. will communicate any need for additional personnel to the Lab Unit Leader.