

ADMINISTRATIVE PROCEDURE

SUBJECT: [Emergency Department System](#) - Down Time Plan

PURPOSE: This plan is intended to provide a procedure to respond to an emergency or other occurrence (for example- fire, vandalism, system failure and natural disaster) that damages an information technology resource which contains electronic health information (ePHI). This plan specifically is designed to respond to failures of hardware, software, and associated utilities used to support the Emergency Department (ED) Information System at the University of Connecticut Health Center. This plan will encompass a data backup plan, emergency access procedures, disaster recovery procedures and departmental downtime procedures. The disaster recovery procedures will provide a process to restore any loss of data in the event of a disaster as well as a systematic recovery process once the system has been reinstated to ensure full data restoration. All failures should be reported to the Information Technology Help Desk at extension 4400.

POLICY: UCHC HIPAA Security Information Systems Down Time and Disaster Recovery

PROCEDURE:

1. Response and Reporting Phase-
 - a. Protect Lives –
 - i. Refer to the Master Safety Plan for evacuation procedures
 - b. Limit Damage –
 - i. Interfaces should be shut down and queued on the interface engine, see emergency contact information on Attachment A.
 - ii. If there is limited availability of the system, print out critical operational reports per Attachment B.
 - c. Protect Information –
 - i. A complete back up of the system should be done if possible.
 - ii. Verify the availability of the most recent back up tapes, contact information on Attachment A.
 - d. **Report any service disruption or failure to the IT Help desk at X4400.**
 - e. **Call PICIS (IBEX) and report service disruption (1-866-455-0001**
 - f. ED Staff will be notified of the downtime via:
 - i. Email Communication or
 - ii. Verbal Communication
2. Resumption Phase-
 - a. For each identified risk displayed in the Attachment C details an impact analysis and an assigned scenario. Each scenario is linked to a specific procedure to follow during system downtime.
 - b. Attachment D details each scenario and the down time procedure to follow.
3. Recovery Phase-
 - a. For the technical procedure for disaster recovery of the hardware and software see the procedure in the Disaster Recovery Section of this manual.

- b. The technical recovery of the system will be managed by the technical staff, the vendor and / or the system administrator.
 - c. Once the system is repaired and available the **technical staff / PICIS (IBEX)** supporting the affected system and the system administrator must first validate the system is working properly.
 - d. Once the system is available, the system administrator will be responsible for determining the restoration priorities which are included in Attachment D.
 - e. A limited number of users will be assigned restoration privileges to provide for an orderly synchronization of the system. The users are included in Attachment D.
 - f. All disabled interfaces must be restarted and validated by the source system and the receiving system staff.
 - g. Standard reports will be executed and assessed for readiness, found in Attachment E.
 - h. The system administrator will be responsible for assessing the completeness of data recovery and data quality before progressing to the restoration phase.
 - i. System status must be recorded and approved using Attachment F prior to “go live”
4. Restoration Phase (Go-Live)-
- a. User rights to access the system will be provisioned based upon Appendix G.
 - b. Once the system administrator determine the system is stable, up-to-date and ready for a higher volume of users, the system administrator will allow the users with approved access into the system for general use.
 - c. System restoration (Live Status) user notification will be done via email or verbal communication.
 - d. All notification banners associated with the system outage will be removed.
 - e. Close monitoring of the system event and audit logs should be performed over the next the next 24 hours. Use event log reporting and review forms in the information systems activity review section of this manual.
5. This plan is should be reviewed annually. All procedures should be reassessed, tested and, if appropriate, revised to reflect changes in hardware, software and personnel. This should be documented on Attachment H.

Procedure Revision History

Change Requested by	Date of Request	Change Implemented On:	New Revision Number

Procedure Approvals

Revision	Approval Required	Printed Name	Signature
Version 1 Rev. 0	System Owner	Robert Fuller, MD Kathy Lundquist, RN	

Attachment A – System Interface Inventory and Emergency Contact Information
System Name ED Information System

Priority	System/Interface Name	System Owner	IT Administrator	Emergency Contact Number	Date / Time Down	Date / Time Up
High	IDX ADT	IT	IT Interface Team	4400		
High	Siemens LCR	IT	IT Interface Team	4400		
Low	IDX HPA	IT	IT Interface Team	4400		
High	ED System	ED	ED Charge Nurse Nursing Supervisor	2588 page operator		

Attachment B – Critical System Reports
System Name ED Information System

Report Name	Person Responsible for Generating the Report	Date Generated	Location Stored	Comments
Chart for all ED Patients	ED Staff			
Screen Print of Tracking Board	ED Staff			

Attachment C – Risk and Impact Analysis

System Name **ED Information System**

Risk/Threat	High Risk	Medium Risk	Low Risk	Identified Safeguard	Downtime Scenario
Air Conditioning Failure - Example			X	There are redundant air conditioning units installed and preventative maintenance and fail over testing is performed monthly.	#1
Aircraft Accident			X		#1
Chemical Spills / HazMat			X		#1
Cold / Frost / Snow			X		#1
Data Center Down		X			#1
Data Destruction			X		#2
Earthquakes/Storms/Hurricanes			X		#1
Electrical Failure/ Power Loss / Outage			X		#1
Faxing Down			X		#3
Fire			X		#1
Flooding / Water Damage			X		#1
Hardware Failure	X				#1
IDX Down/ Siemens Up			X		#1
IDX Down/Siemens Down			X		#1
IDX Up/Siemens Down			X		#4
Interface Engine Down (Quovadx)		X			#4
Interface Engine Down (Open Link)		X			#4
Interface Engine Down (Open Link and Quovadx)		X			#4
Internet Down		X			#1
Nuclear Mishaps			X		#1
Sabotage / Terrorism/ Vandalism			X		#1
Software Failure	X				#1
Software Module Failure	X				#1
Software – 3 rd party Failure	X				#1
T1 to Siemens Down			X		#4
UCHC Network Down/ Communications Loss		X			#1

Attachment D – Downtime Procedure Template Sample

These procedures will be divided into different scenarios based upon each situation. An assessment of the situation will be required before following a specific procedure. This assessment is in the form of questions regarding the availability of other systems.

A. Scenario #1 : IBEX System Down

Causes: See Attachment C

Additional Staffing Required: None

Additional Equipment Required:

- Downtime Tracking Board
- Prescription Pads
- Paper Charts
- Radiology Requisitions
- ADT down-time Procedure form (see attached) if needed

Manual Reports Required: Paper sheet for Patient Log

Notification to Senior Management: Daily

Downtime schema

1. Notify the Help Desk in the Information Technology Department (X4400)
2. Call PICIS (IBEX)– 1-866-455-0001 to log the issue so they can begin working on the problem
3. If system is available or downtime was scheduled – print the charts of all patients currently in the ED
4. A written log of ED, patients registered during the downtime must be maintained.
5. Locate downtime Tracking Board

Registration/Admission

Is IDX available?

- No –
 - Proceed with IDX down time procedures as established for obtaining a patient’s existing T0 through either Siemens Gold or assigning a downtime T0 from the Down Time Book.
 - Assign a down time visit number
 - Manually enter Patient information on ADT Down-Time Procedures Form

- Record T0 and visit number assigned on the form
- Record date and time of arrival into ED and chief complaint
- Copy the patient's insurance card and driver's license
- Manually generate patient card and labels from Data Card Machine (If operational)
- Create Labels and label all paper forms with patient labels
 - Chart
 - Permission to Treat
 - Demographic and Insurance information
 - Place label in the down time book with the assigned visit number
 - Apply patient sticker on Paper log book
 - Proceed to document all patient care on the paper chart
- Yes -
 - Continue registering the patient into IDX
 - Complete Admission and Insurance information
 - Apply patient sticker on Paper Log Book
 - Print out IDX Facesheet
 - Copy the patient's insurance card and driver's license
 - Generate patient card and labels from Data Card Machine (If operational)
 - Stamp/label all paper forms with patient labels
 - Chart
 - Permission to Treat
 - Proceed to document all patient care on the paper chart.

Patient Care

Use Down Time Tracking Board to document

- location of patient
- patient name
- age
- complaint
- urgency
- Nurse
- MD

Document all care delivered and time provided to patients on the paper charts

Use paper prescription pads

Use paper discharge instructions

Use additional paper forms as necessary

Keep copies of all documentation distributed to patients

Discharge Process

Is IDX available?

- No –
 - Record date and time of discharge
 - Record discharge disposition
- Yes –
 - Discharge patients directly in IDX

ED Report Distribution

If an ED patient is admitted send a completed copy of the ED record to the hospital Unit.

Recovery Process and Priorities

This is the procedure which should be followed once the system is available

Registration/Admission

Was IDX was available during downtime-

- No –
 - Using the patient info sheet register the patient
 - At the registration screen that assigns the T0 number, enter in the T0 number that was assigned.
 - DO NOT type in “G” to generate
 - On the admission screen use the date of admission, time of admission and the visit number that was assigned. DO not use “ T” for today, “ N” for now or “ G” for generate.
 - Enter demographic information and insurance information of patient from the paper form into IDX
 - Once the IDX ADT patient information is available in the ED IBEX system
 - Record date and time of triage in the ED system
 - Enter urgency code
 - Enter vital signs
 - mode of arrival
 - Scan the copy of the patient’s insurance card and driver’s license into ED system
 - Scan the Permission to Treat
 - **Nurse Notes/Procedures-**
 - If during downtime 5 patients or less were treated all documentation must be recreated in the ED system

- For patients that were in the IBEX system when the system went down all additional documentation must be entered into IBEX when the system is back up
 - If greater than 5 patients were treated the documentation will be scanned into the ED system
 - Scan all copies of downtime nursing documentation into ED system as follows:
 - “Downtime Chart” page 1,2,3 etc
 - Document on the Nurse’s note in IBEX that this is a “Downtime Chart”
 - **Licensed Independent Practitioners**
 - For all patients treated during the downtime the following sections of the record will be completed by the LIP
 - Procedures
 - Medication Services
 - Medications
 - Allergies
 - Prescriptions
 - Disposition
 - Diagnosis
 - Doctor Notes
- Yes -
- Record date and time of triage in ED system
 - Once the IDX ADT patient information is available in the ED system
 - Record date and time of triage in the ED system
 - Enter urgency code
 - mode of arrival
 - Vital signs
 - Scan the copy of the patient’s insurance card and driver’s license into ED system
 - Scan the Permission to Treat
 - **Nurse Notes/Procedures-**
 - If during downtime 5 patients or less were treated all documentation must be recreated in the ED system
 - For patients that were in the IBEX system when the system went down all additional documentation must be entered into IBEX when the system is back up
 - If greater than 5 patients were treated the documentation will be scanned into the ED system
 - Scan all copies of downtime nursing documentation into ED system as follows:
 - “Downtime Chart” page 1,2,3 etc
 - “Downtime” Charge Sheet
 - Document on the Nurse’s note in IBEX that this is a “Downtime Chart”
 - **Licensed Independent Practitioners**
 - For all patients treated during the downtime the following sections of the record will be completed by the LIP

- Procedures
- Medication Services
- Medications
- Allergies
- Prescriptions
- Disposition
- Diagnosis
- Doctor Notes

Discharge Process

Was IDX available during downtime?

- No –
 - Discharge the patient as you would in the ED system
 - Remove the patient from the ED
 - Edit the Date and time of discharge in IDX to reflect the actual date and time of discharge
 - Record discharge disposition in IDX
- Yes –
 - Discharge the patient as you would in the ED system
 - Remove the patient from the ED
 - Edit the Date and time of discharge in IDX to reflect the actual date and time of discharge
 - Record discharge disposition in IDX

ED Report Distribution

No action required; a copy of the report will be generated once the chart is complete. The system will automatically sent a copy of the chart to LCR.

B. Scenario #2 : Data Destruction

Causes: See Attachment C

Additional Staffing Required: None

Additional Equipment Required:

- Down time Tracking Board
- Prescription Pads
- Paper Charts
- Paper Charge Sheets

Manual Reports Required: Paper sheet for Patient Log

Notification to Senior Management: Daily

Downtime schema

1. Notify the Help Desk in the Information Technology Department (X4400)
2. Call PICIS (IBEX)– 1-866-455-0001 to log the issue so they can begin working on the problem
3. Locate downtime tracking form
4. Determine if the data destruction is
 - a. Complete – See Scenario #1
 - b. Partial – Continue normal operations but in system but document as if in scenario #1
5. A written log of patients having procedures during the downtime must be maintained

C. Scenario #3 : Faxing Down

Causes: See Attachment C

Additional Staffing Required: None

Additional Equipment Required: None

Manual Reports Required: Paper sheet for Patient Log

Notification to Senior Management: Daily

Downtime schema

1. Notify the Help Desk in the Information Technology Department (X4400)
2. Call PICIS (IBEX)– 1-866-455-0001 to log the issue so they can begin working on the problem
3. Print out Fax Chart copy
4. Manually Fax to Referring Physicians
5. A written log of patients charts that were fax should be maintained

D. Scenario #4 : Interfaces Down

Causes: See Attachment C

Additional Staffing Required: None

Additional Equipment Required: None

Downtime schema

1. Notify the Help Desk in the Information Technology Department (X4400)
2. Call PICIS (IBEX)– 1-866-455-0001 to log the issue so they can begin working on the problem
3. Continue normal operation
4. Enter Patient information into IDX
5. Manually enter patient information into ED system
 - a. Patient's full name
 - b. Date of Birth
 - c. Gender
 - d. MRN
 - e. Admission Number
6. Once the report is complete a copy of the report should be copied and sent to the floor if the patient is admitted
7. Distribution of reports to referring physicians will still be done by faxing
8. Discharges should be done directly into IDX
9. Charging will be done once the interface is back up and running

Include Recovery Priorities –

- Once interfaces are back up
 - Check to see if the patients demographic data has been received by the system
 - Merge ADT if needed
 - Check LCR to see if the reports filed
 - If the reports did not file –have the staff re-send the reports

Attachment E – Standard Readiness Reports Approval
System Name ED System

Report Name	Person Responsible for Generating the Report	Date / Time Submitted for Approval	System Owner Approval (Signature)	Date / Time Approved
ED Chart	ED Staff			
Prescription	ED Staff			
Complete Triage	ED Staff			
Discharge transaction	ED Staff			

Attachment F – Critical System Status Indicators
System Name ED System

Indicator Name (Event or Audit Log, Utilization, Speed etc.)	Indicator should be:	Indicator Status	System Owner Approval	Date / Time Approved
Chart to LCR				
Patient Demographics to ED system				
Discharges to IDX				
Print Chart				

Attachment G – System User Provisioning for “Go Live”

System Name ED System

Priority	User Group	Access Granted Time / Date	System Operationally Effective Date / Time	System Owner Approval (Signature)	Date / Time Approved
ED Nurses and MA's					
ED MDs & LIP's					
All other ED Staff					
All other users					

