

Laboratory Downtime Procedures

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Determining the Type of Downtime when Cerner is NOT down

Patient Access Number: 130-2125

EPIC is DOWN?

- ⚡ This is the only time Patient Access will use downtime CSN numbers.
- ⚡ Downtime CSN #s start with 80000000.....(see below)
- ⚡ Lab will get an EPIC downtime label that looks like the following:

Name: Ludy, Robert B
DOB: 04/08/1959
MRN: 00012345 or 9000xxxxxx
CSN: 800000004445
Admit Date: 7 January 2014

⚡ The MRN # during EPIC downtime:

- The MRN # can either be a downtime number if the patient has never been in the system before. Downtime #s start with: 9000xxxxxxx
- If a patient has been in the system before, Patient Access will get the real MRN from Shadow Read Only (SRO) in EPIC.
- The EMD/floor should not reorder tests when EPIC is back up, IF they were ordered on a Green and White.
- Continue to check the status of Downtime with Patient Access.

⚡ Go to Tab #4 in this manual

EPIC and Cerner are up, but the INTERFACE is not allowing them to talk→

- ⚡ Call 127-6722 and notify Lab IT support at SJH.
- ⚡ Patient Access will register as normal in EPIC 130-2125.

- ⚡ ED and floors will order STATs/ASAPs on Green and White (black) requisitions and use an EPIC label. ED should send requisition to lab and lab will register patient in PAR and <shift F6> COE to order tests.
- ⚡ Always use the numbers on the EPIC label. Be exact. Typos do not cross the interface.
- ⚡ ED/floors should not order tests in EPIC that were ordered on a Green and White
- ⚡ Proceed to TAB #4.

When Cerner is Down:

- ⚡ This is the only time the lab assistants will use our downtime numbers
 - Please check with SJH IT/Nuria to see how long they expect the DT to last. If it will not be > 2 hours, it may be best to run tests off line.
 - Procedure manuals are stored on the IRON KEY hanging in the key box at the front of the lab if all IT (intranet too) computer access is down.

!!! Downtime labels and numbers remain the same throughout the entire encounter.

Downtime Procedure Checklist (optional)

Items to address:	√ if done	Comments/Tech ID
1. Initiate Notification Process		
2. Determine Staffing needs as necessary		
3. Alert all Floors and communicate needs		
<ul style="list-style-type: none"> ☒ Respond to emergency pager in chemistry ☒ Participate in Conf. Call if MTC or manager not available 		
4. Huddle with ED Department		
<ul style="list-style-type: none"> ☒ Communicate what we need (Green Reqs and sample together) ☒ Turn on the auto-fax 		
5. Prepare Department		
☒ Place all instruments in manual mode and Turn off Host Connection to "hold" results.		
☒ Turn Analyzers Printer Settings to print ALL		
☒ Turn Indices ON for DXC		
☒ Check Julian Dates for Patient ID's (13=yr, 0## for days + 5digit downtime number)		
☒ Prepare Normal ranges and AMR record for critical calls		
☒ Check and review FAX numbers if working		
6. Recovery		
☒ Assign accessioner to register patients and place orders		
☒ Turn back Host connections to ON		
☒ Check and review WCP, CPR, NCC, RQW		
☒ Return all Downtime procedures in the Downtime Response Plan Book		
☒ File requisitions and all manual logs		
☒ Send BB(bloodbank) and Micro Samples to SJ		
☒ Process Send-outs		

CODE TRIAGE (Optional Form)

Disaster is Computer Systems Down

Which Computer System Down? CERNER EPIC Interface

Date & Time System(s) Went Down: _____ UPDATE #: _____

Notification:

Initiate, call to LIS to notified about issues: _____(who,time)

- LIS 127-6722 or check LIS On-call schedule- on Lab Portal

Initiate, call to IT (152-4179) first call: _____(who,time)

- Initiate, call to Lab management, each site: _____(who,time)

STAFF – How To Proceed:

Notify floor and fax notification according what is needed to get orders, results, and communication number. _____(who,time)

Notify House Supervisor at each time-keep up with bed/admit issues

Registration/Processing Samples

- Patient's Registered?_Yes or No Now what? _____
- Downtime Req's? Yes or No Now what? _____

Instrumentation-Testing:

- CERNER Up & EPIC down: No changes in running tests
- CERNER Down: Prepare to printer with forms for temporary report

How Do Results Get To Units?

EPIC up: No change

CERNER Down: Fax Results - Instrument and Downtime Result Reports

Lead Contact Protocol:

- Management to initiate a conference call:
- Lab Manager Pager Routing: 253-416-1324
- Arch Paging text to add; Schedule a Conference call 1-888-636-3807 and participant code 4700101#

Schedule Meetings: _____ (who, time, call time)

- Time Line: _____ Plan: _____
- Time Line: _____ Plan: _____
- Time Line: _____ Plan: _____

Communication What, Who, When?

Determine Regional Lab Incident Commander : _____(who)

Site Commanders: _____(who)

Who needs to be notified or not on call? _____

Incident Commander-how to contact? _____

House supervisors? _____(Bed Control/Admits)

Active Over Head Page? _____ How? _____

What do we want the floors/units to know now? _____

When to provide update to floors/units? _____



Lab Order Entry during Cerner-EPIC-Interface downtime.

- **Do not order labs in EPIC if you have sent down a manual requisition during the EPIC +/-or Cerner downtime.**
- **You will be notified when the system(s) are up and you can resume normal order entry.**

How to place lab orders:

1. Please use Green & White (black) requisition to order lab tests.
2. Include the **date, time and room numbe** on the requisition along with the EPIC label.
3. Please send 6 extra EPIC labels along with your order.

What can I order?

STAT
TIME STUDIES
ASAP

What should I not order at this time?

DO NOT send future orders.
No Q Hr orders or Q day orders please
No AM orders
No orders for tomorrow

Date: _____ Time: _____

Lab Contact Person: _____

What to do during an EPIC, Interface, or Cerner Downtime

Open the Downtime Procedure Manual

TURN ON THE READER BOARD PPT.

- Press→ESC
- DC (double click) on: shortcut to SAH LAB (Orange icon)
- DC→PPTS
- DC→Readerboard
- DC→SAH Cerner Downtime
- LC (left click) Slide Show
- LC: From beginning

Initiate Notification Process:

- ✚ Lab Manager- 253-302-1835 pgr 416-1100
- ✚ MTC, Jackie360-908-8644
- ✚ LIS at SJH – 127-6722
- ✚ House Supervisor – 130-2262→this will send a message to the pager
- ✚ Unit Charge RN
- ✚ ED CRN and HUUS

1. Prepare Department

- ✚ Tech-in-charge or management responsibility
 - Call House supervisor at 130-2262
 - Distribute Dept specific downtime procedures and forms to use
 - Assist Techs in preparing result forms and logs to use
- ✚ Lab Assistant responsibility-
 - Notify floors that New Admit orders and/or new test requests (to include specimen sent to the lab) not previously ordered in EPIC as TS and STAT needs to have Green Requisitions and full patient information (Name, CSN, DOB, UNIT/Rm #) along with DATE and TIME for collection when sent to the Lab.
 - Green Requisitions and Sample must be sent to the lab together
 - Notify floor **NOT TO PLACE ORDERS in EPIC until further notice (for Complete Downtime)**
 - Prepare files needed for sample processing

For Cerner DT, add the following:

- **All logs and procedures are in the Downtime Manual accessible on the Intranet.**
- **Copies of all procedures, forms, WIs are in this manual**
- **The Iron Key with all backup procedures is in the key storage at the front of the lab**

What to do during an EPIC, Interface, or Cerner Downtime

HAVE AMR'S (Analytical Measurement Range) AND NORMAL RANGES HANDY TO INCLUDE CRITICAL VALUE LIMITS TO VERIFY CRITICAL RESULTS AND CALL IN TIMELY MANNER.

PREPARE LIST OF FAX NUMBERS TO INCLUDE OUTSIDE LINE FAXES AS NECESSARY.

Specimen Processing:

- a. Prepare Downtime Logs:
 - Manual STL log
 - FHS Downtime Manual Log
- b. Prepare Downtime Stickers
- c. Prepare Files to use:
 - Done File – to file all filled Manual Logs
 - Green Requisition File – to file all processed Green Reqs

Manual Processing of Sample:

- a. Using the Downtime Sticker, assign a number to Patients orders regardless of test. (One patient gets one sticker for all sample/tests)
- b. Use EPIC/Cerner label to enter patient/test information on the log
- c. On downtime sticker, write tests ordered.
- d. If sample is shared between two departments or test, or requires pouring off to run, place an extra sticker for an aliquot tube for Techs to use
- e. Deliver samples to every department to run tests
- f. For extra tubes or orders where we did not received any sample, write the information under COMMENT (i.e. XLAV, XRED, XBLU or no urine rec'd or TX ordered.
- g. Process send-outs last

2. Prepare Instrument/Lab for Downtime

- ✚ Turn off Host Transmission on all Machines: This prevents results from crossing over to Interface while Cerner is down.
- ✚ Important Sample information and Patient demographics needed to be entered in Analyzer during downtime and to significantly appear in Result print-out are:

What to do during an EPIC, Interface, or Cerner Downtime

- a. Accession number with Julian date, (14-xxx-4xxxxA) and MRN (needed for Host Transmission/ID verification)
- b. Gender and DOB (for Ranges, GFRs and indices)

******* During downtime ALL LOGS AND MANUAL REPORTS have to be kept on file on each Department for easy retrieval and will be saved for 2 years**

What to do during an EPIC, Interface, or Cerner Downtime

Downtime Recovery → Cerner +/- EPIC:

It is critical that no one sign onto Cerner until the system is completely turned over to your department. While Cerner may be up it is essential that processes follow the Sequences as described below.

Lab Assistants:

- In charge of Patient samples received in lab during downtime
- Recovering order from “FHS Manual Downtime Back-Up Log”
 - ✚ If EPIC and Cerner DT: Perform PAR registration using DT #s when Cerner is back up. **Use DT accession in the ACCN field.**
 - ✚ For Cerner DT: Enter the downtime accession number in the “ACCN” field of COE (Up arrow from Priority Status)
 - ✚ Order one log sheet at a time. Once a log sheet is completely ordered, deliver the Cerner labels to the appropriate testing department

*****Place your Tech Id at the top of the log sheet documenting that you are the person placing those orders

- B. Staff not involved in downtime recovery will continue normal processing functions per that day's assignments
 - Pull and reconcile a CPR, RQWs and PKLs

Testing Personnel

****Turn LIS/Host Interface on. Disable Auto printing as applicable.

Notify Supervisor/Manager in-house if results cross-over or not.

- A. Once orders have been placed you will be given Cerner labels
 - a. Use the labels to ensure that results have crossed, ignore container #(A,B,C etc.)
 - i. Enter applicable comments
 - ii. Verify the results
 - iii. In those cases where results do not automatically cross, manually re-transmit or enter the results
- B. Affix Cerner Labels to each tube
- C. Deliver / CLIP samples
- D. Those personnel not involved in recovery efforts will ensure that Testing is performed on all new samples being delivered for testing
- E. Pull and resolve WCPs

Computer Downtime: EPIC up→Cerner up→ Interface down

**Only STATS or Timed draws should be ordered by providers during a downtime.
Routine order should be placed after the system is back up.**

- **Call Patient Access at 130-2125. This is the desk outside of the ED and often they are the first to know exactly what is down.**
- **Call SJH LIS IT @ 127-6722 and tell them exactly what is happening.**
 - **Ask them what they know about the problem**
 - **Ask them to notify you when the interface is back up**
- **Call the house supervisor at 130-2262. The number will ring through to their pager if not in the office.**
- **Call the EMD and alert them to the problem.**
- **Every ED patient will need the following information on a green and white requisition (black):**
 - **An EPIC label on the green and white Req. Use the MRN and CSN from the green and white!**
 - **Tests required**
 - **A patient's Name, DOB, Sex, location, (ECUA)**
- **IMPORTANT***If EPIC is up the patient will have a real MRN/CSN#,**
- **Patients should not be registered on an old encounter--EVER.**
- **Patients can be registered during an interface downtime by the lab assistants in Cerner. You need the information above and the following information:**
 - **Patient type = E**
 - **Facility = SA**
 - **Location = ECUA**
- **The following directions will walk you through the registration and test ordering process**

PAR - Patient Registration

****Before you begin: check OID for a current registration****

This document assumes EPIC or the EPIC interface is down, Cerner is up and ECUA (Patient Access) is providing downtime EPIC labels and financial numbers. Accurate entry of patient name, MRN, Financial number (CSN) and DOB are critical. When EPIC comes up it will overwrite manual entries if these are correct. If no downtime EPIC MRN or CSN # is provided, lab staff must go to total downtime

1. Sign on to Cerner
2. At select prompt enter PAR
3. Press Insert and choose MRN or CSN. It will default to 0104 and auto fill with St Anthony Hospital,

```
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File Edit Connection Setup Script Window Help
NODE:SJLIS-4002 ENV:AXP USERNAME:DUNN, CECIL D
PATIENT REGISTRATION (PAR)
01 PATIENT NUMBER _____
02 PATIENT NAME _____
03 PATIENT TYPE _____
04 SEX/AGE/DOB _____
05 ADMITTING DOCTO _____
06 CONTACT SERIAL _____
07 _____
ADMISSION DATE _____
08 DIAGNOSIS _____
09 _____
10 _____
11 RACE/HEIGHT/WEI _____
12 MAIDEN NAME _____
13 CONSULT DOCTORS _____
14 _____
15 _____
DISCHARGE DATE _____

Selection Method
01 Patient Name
02 Medical Record Number
03 Financial Number
04 STAR MRN
05 Social Security Number

LT ACCUM
ODE
POUNDS

Select 02          99 TO Exit
```

- Up arrow and then Shift <F5> to enter a different location code in the parenthesis. if other than SAH.

55.r2w - Reflection for UNIX and Digital

File Edit Connection Setup Script Window Help

NODE:SJLIS-4002 ENV:AXP USERNAME:DUNN, CECIL D

P A T I E N T R E G I S T R A T I O N (P A R)

01 PATIENT NUMBER	(CLIENT	0008	SPITAL
02 PATIENT NAME		01 ST JOSEPH MEDICAL CENTER	00000	
03 PATIENT TYPE		02 ST FRANCIS HOSPITAL	00001	
04 SEX/AGE/DOB		03 ST CLARE HOSPITAL	00002	
05 ADMITTING DOCTOR		04 ST ANTHONY HOSPITAL	00003	
06 CONTACT SERIAL #		05 ST ELIZABETH HOSPITAL	00004	
07		06 QUEST DIAGNOSTICS	00100	
ADMISSION DATE		07 ST JOSEPH MEDICAL CENTER	00101	
08 DIAGNOSIS		08 ST FRANCIS HOSPITAL	00102	
09		09 ST CLARE HOSPITAL	00103	
10		10 ST ANTHONY HOSPITAL	00104	
11 RACE/HEIGHT/WEIGHT		*** continued ***		S
12 MAIDEN NAME		Select 01		
13 CONSULT DOCTORS				
14				
15				
DISCHARGE DATE				

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- Auto fill with 0104 and SAH

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File Edit Connection Setup Script Window Help

NODE: SJLIS-4002 ENV: AXP USERNAME: DUNN, CECIL D

P A T I E N T R E G I S T R A T I O N (PAR)

01	PATIENT NUMBER	(0104) ___ - ___ - ___	ST ANTHONY HOSPITAL
02	PATIENT NAME		
03	PATIENT TYPE		
04	SEX/AGE/DOB	YRS	
05	ADMITTING DOCTOR		
06	CONTACT SERIAL #		
07	ADMISSION DATE	BY	STAR MRN RESULT ACCUM
08	DIAGNOSIS		DX CODE
09			
10			
11	RACE/HEIGHT/WEIGHT	INCHES	POUNDS
12	MAIDEN NAME		
13	CONSULT DOCTORS		
14			
15	DISCHARGE DATE		

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4. Enter the **exact** MRN/CSN on the label
5. **Enter the patient name** provided exactly as written
6. **Enter (<E>)** through the SS# field.
7. **Enter the patient type** using the Cerner tool for type, Nursing Stations, and Beds. Shift +F5 Help will display options. Note: type P is for Paclab patients only. At SAH enter E for emergency room patient. (see below)

CERNER - Reflection for UNIX and Digital

File Edit Connection Setup Script Window Help

MODE: SJL IS-0093 ENV: AXP USERNAME: LEA, KAREN SULL

PATIENT REGISTRATION (PAR)

01 PATIENT NUMBER (0000)110-01-1000 ST JOSEPH MEDICAL CENTER
 02 PATIENT NAME LEA, KAREN SS# 000-00-0000
 03 PATIENT TYPE
 04 SEX/AGE/DOB
 05 ADMITTING DOCTOR
 06 FINANCIAL NUMBER
 07 ADMISSION DATE

08 DIAGNOSIS
 09
 10
 11 RACE/HEIGHT/WEIGHT
 12 MAIDEN NAME
 13 CONSULT DOCTORS
 14
 15 DISCHARGE DATE

PATIENT TYPES 0150
 01 CLIENT-SJ C
 02 EMERGENCY DEPT E
 03 CLIENT-SF F
 04 HOSP OUTPT H
 05 INPATIENT I
 06 CLIENT-SC L
 07 MICRO QC M
 08 NURSING HOME N
 09 OUTPATIENT O DS
 10 PAML PATIENT P
 *** continued ***
 Select 01

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8. Enter the Facility code FAC- choose Shift+F5 for options. SJ,SA,SF,SC,SE
9. Enter the LOC for the patient type. This is the Cerner code for the Nursing station the patient is located at. For example, Patient type E at Facility SA, the location will be ECUA
10. ENTER Sex/Age/DOB
11. At provider Enter Shift+F5 and search for provider on the EPIC label. If patient is in ED, the physician is PHYSICIAN, EMERGENCY 0000911
12. Enter CSN (Financial Number) **exactly** as written
13. Enter the patient admit date. If downtime has crossed midnight, the admit date could be yesterday's date.
14. For PSC only: If CSN is not on the requisition, type a zero(0) to let Cerner assign a CSN.

This is how it should look for SAH inpatient/outpatient ER registration.

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NODE:SJLIS-4002  ENV:AXP  USERNAME:DUNN, CECIL D

PATIENT REGISTRATION (PAR)

01 PATIENT NUMBER      (0104)033-360-6946      ST ANTHONY HOSPITAL
02 PATIENT NAME        TEST, PATIENT          0091659      SS#      - -
03 PATIENT TYPE        E FAC SA   LOC   ECUA
04 SEX/AGE/DOB         M   139 YRS      01/01/1875
05 ADMITTING DOCTOR   0037985 CAMPBELL, JOHN A      EMR
06 CONTACT SERIAL #   800000-004445
07
    ADMISSION DATE          BY          STAR MRN      RESULT ACCUM

08 DIAGNOSIS                               DX CODE
09
10
11 RACE/HEIGHT/WEIGHT                               INCHES      POUNDS
12 MAIDEN NAME
13 CONSULT DOCTORS
14
15
    DISCHARGE DATE
  
```

15. F8-HOME

16. Branch to COE.

17. Find patient just entered in PAR by CSN/MRN number. Choose carefully and do not order on a previous encounter.

18. Order testing in Cerner as normal from the requisition provided.

A shortcut (LEAN) way to register and order:

- In COE, Patient Registration task window will also open and save a step if preferred. Follow the steps as outlined above.
- Press Insert
- Choose MRN/CSN
- Press enter and register just as in PAR

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File Edit Connection Setup Script Window Help

NODE:SJLIS-4002 ENV:AXP USERNAME:DUNN, CECIL D

CLINICAL ORDER ENTRY (COE)				PATIENT (0104)123-133-0445	
				ST ANTHONY HOSPITAL	
NAME	AGE	SEX		ID	BILL 1
DR	DOS	PT			

01 PATIENT NAME █
 02 PATIENT TYPE
 03 ADMIT DATE
 04 FINANCIAL #
 05 SEX/AGE/DOB
 06 ADMITTING DR
 07 STAR MRN
 08 DIAGNOSIS
 09
 10 RACE/HGT/WGT
 11 CONSULT DR
 12
 13

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Downtime- DXC 600

- **Turn on printing**-System Setup→report setup→print options-change “Disable Reports” to “Print Patient and Control Reports”→done
- **Turn on Indices**-Setup→Auto Serum Index/Ordac→touch Serum Index→done
- **Manually programming samples:**
 - Type in Rack, Pos #
 - Choose sample type (serum, random urine etc)
 - Enter Sample ID (use the downtime accn # as the last 5 digits of accn # and use the “A”)
 - Hit F2 Demographics
 - Enter all patient demographics (**Name, Epic MRN, DOB, Location, Patient age/sex**)-this determines the correct reference ranges
 - Program Tests or panel of tests
- **Clear Racks** -when they come off (Rack # and/or Accn #)
- **Fax Interp sheet** with any DSU SCR or TTCA results

Recovery- DXC 600

- **Turn off printing**-System Setup→report setup→Print Options-Change “Print Patient and Controls” to “Disable Reports”→done
- **Turn off Indices**-Setup→Auto Serum Index/Ordac→touch Serum Index→done
- **Resending Results:**
 - **To send groups of data:**
 - Select the Results icon from the menu bar
 - Enter range of racks, patient ID or name, **run date/time (range of downtime)**.
 - Select Host (F8) to send results to host.
 - NOTE: You will not receive confirmation that the results have been sent but you can see the blue/green bars moving at the top right of the DXC screen to see that the host is transmitting.
 - Go to the datalink to view the results that are held
 - Go to Cerner to document any critical calls/verify any results not autoverified
 - **To send individual sample data:**
 - Select the Results icon from the menu bar
 - Enter sample ID, patient ID or name
 - View data for individual sample
 - Select Host (F8) to send results to host.
 - **Note:** If critical value or failed delta, results will be held in the Datalink, normal autoverify if autoverification is turned on.

Downtime- DXI

- **Turn on printing**-Configure→System Setup→Reports Setup→Check Auto print, continuous sample report→OK
- **Manually Programming Samples:**
 - New Request F3
 - Patient/QC Request
 - Enter Rack ID
 - Enter **Accn #** in the Sample ID field
 - Enter Patient **Name** in the Patient ID field (Last, First)
 - In the **Comments** box- type the **MRN, DOB & Location**
 - Select the tests to run
- **Fax Interp sheet** with any CKMB, HCGQN or BNPEP results

Recovery- DXI

- **Turn off printing**-Configure→System Setup→Reports Setup→Uncheck Auto print, continuous sample report→OK
- **Resending Results:**
 - On MAIN MENU screen select F2 (Test Results)
 - Select F1 (Filter)
 - Highlight “All Samples loaded Between”
 - Select Sample ID to the right in the Sort Order 1st Box
 - Select F1 OK
 - Select Past # hours. Enter the number of hours needed for look back, i.e. length of downtime
 - Select F1 OK.
 - A list will appear with a heading “All Samples loaded Between” sorted by Sample ID. In order to send results to Host, highlight the desired result using the up/down arrows and then select F5 (Send to LIS).
 - A pop up box will appear. Select Current Result then F1 OK.
 - In order to select multiple samples to send results to Host, highlight the desired samples by holding the shift key down and using the up/down arrows. Then select F5 (Send to LIS)
 - A pop up box will appear. Select Current Result then F1 OK.
 - Check the far right column labeled LIS. The message should go from Unaccepted to Sending to Accepted.
 - **Note:** If critical value or other error, results will be held in the Datalink, normal autoverify if autoverification is turned on.

Downtime- GEM 4000

- **Manually Running Samples:**

- Select test or panel of tests to run
- Specify the sample type/container
- Press GO
- At “No order identified. Proceed w/ analysis without an order?” prompt, select Yes.
- Insert Sample for analysis
- Select the Enter Information Tab. Enter Tech ID and enter Accn # into the Sample ID field.
- Enter Full Name, DOB and MRN #
- Press View Results and Accept/Print
- Record results on manual Priority Testing Form and fax to floor
- Staple GEM printout to manual Priority Testing Form and save

What to do during an EPIC, Interface, or Cerner Downtime

GEM/I-Stat :

Manual Programming to run and verify tests.

Downtime Recovery on Chemistry:

- A. Once all orders are entered, Chemistry results held by Datalink should interface.
Use the labels to ensure that results have crossed, ignore container #
 - i. Enter applicable comments
 - ii. Verify the results
 - iii. In those cases where results do not automatically cross, manually re-transmit or enter the results
- B. Affix Cerner Labels to each tube
- C. File all downtime Results and logs to our 2 year file

Downtime- LH's

- **Turn on printing**-Click Run Configuration (lightning bolt icon)→Click on Print tab at top→select All Samples→change Report Name to “Downtime” (dropdown menu at bottom) Leave Report layout to “A”→Click Green checkmark to save. This will print 2 copies of each result—one for us and one with reference ranges printed for the floors
- **Manually Programming Samples:**
 - Click on Patient Bed icon (bottom left)
 - Click on “Add sample request” Bed with “+” sign icon (top of screen)
 - Check box for test(s) to run
 - Fill in highlighted areas (all demographics **Full name, MRN in patient ID field, DOB, location in comments box, gender**) important for correct reference ranges to print
 - Click bed with “+” sign to add another request
 - On LH analyzer screen type in the ID and run sample in secondary mode
 - Review results and fax copy with reference ranges printed

Recovery- LH's

- **Turn off printing**-Click Run Configuration (lightning bolt icon)→Click on Print tab at top→select Specific Flags →change Report Name to “All Parameters” (dropdown menu at bottom) Leave Report layout to “A”→Click Green checkmark to save.
- **Resending Results:**
 - Click on Bed icon (bottom left)
 - At top of screen click on folders icon to open “Database/To Do List”
 - Click on Completed/All and look for downtime runs
 - Click on the tab box before each number to highlight line
 - Click on Results and Graphics icon to review results, if needed
 - Click on 2-computer icon at the top left corner to re-transmit results
 - **Note: Go to Cerner and verify results or modify results (enter manual diff results, morph etc), and document footnotes such as smear reviews, critical calls.**

What to do during an EPIC, Interface, or Cerner Downtime

COAGULATION DEPARTMENT

Downtime TOP 500 draft

Downtime TOP 500 instrument quick tips

Recovery TOP 500 instrument quick tips

Downtime- Top 500

- **Turn on printing**-Instrument→Log off user→Login as Administrator (SysAdmin,topdog) →Setup→Reports→Autoprint setup tab at top→Check Enable Autoprint box
- **Manually Programming Samples:**
 - Go to sample rack screen (S with triangle icon)
 - Double click top circle on far left sample rack to program
 - Enter Accn # in Sample ID field
 - Choose tests to run
 - Click Actions→Rack→Insert
 - Place rack, press Home
- Patient Demographics can be added after the rack has been loaded or handwrite patient demographics on each instrument printout (**Full name, MRN, DOB, Location**)
- **Use Downtime form**-handwrite patient result and demographics. FAX this form to the floors as it has reference ranges/critical values printed.

Recovery- Top 500

- **Turn off printing**-Instrument → Log off user → Login as Administrator (SysAdmin,topdog) → Setup → Reports → Autoprint setup tab at top → Uncheck Enable Autoprint box
- **Resending Results:**
 - Go to Sample Results Screen (piece of paper icon)
 - Filter by date/time of downtime
 - Review results prior to verifying
 - Click on far left of screen to place checkmark next to desired accn #'s.
 - Click the green V (validate) button
 - Reselect the far left column
 - Click the arrow to upload
 - Go to WCP to verify that results autoverified &/or manually result results that were not autoverified (criticals)
 - **Note:** Remember to check sample integrity and order HEMOL CHKC on any hemolyzed samples.
 - **Note:** Check PTT samples for clots when results <22 sec are obtained PRIOR to validating from the instrument. See Reporting Guide on side of instrument for more detail.

COAGULATION DOWNTIME PROCESS

- St. Joseph Medical Center Tacoma, WA
- St. Francis Hospital Federal Way, WA
- St. Clare Hospital Lakewood, WA
- St. Anthony Hospital Gig Harbor, WA
- St. Elizabeth Hospital Enumclaw, WA
- PSC

PURPOSE

To provide instructions for the Coagulation Section operations during a Cerner LIS Downtime

BACKGROUND


When the Cerner LIS is down, the coagulation testing will continue, and manual methods will be used per work instructions.

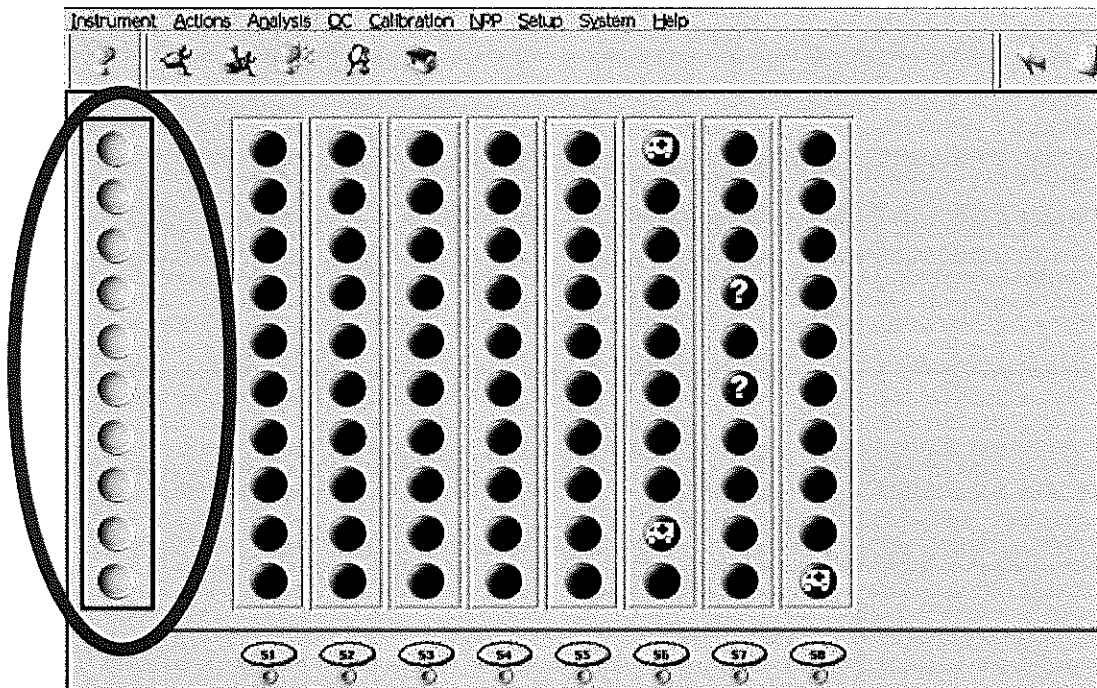
SUPPORTING DOCUMENTS



- R-PR-SPC0800 Cerner Downtime Decision Process
- R-PR-AD0802 Cerner Downtime Operations Process
- R-F-CG1530 Coagulation Downtime Result Report Form


STEPS

The analyzer will be set to print one patient sample per page starting 1530 on August 2nd.

1. Begin Manual Programming of Samples.
 - a. Load Samples into an appropriate rack.
 - b. Single click or touch Select the Sample Area icon .
 - c. Double-click a sample on the off line rack (located on the left side of the screen) to open the Rack Details screen.



- d. Enter the sample ID (**Note:** All specimens must have a downtime number for manual entry) in the Sample ID field.
(Note: For samples with Cerner barcodes place in rack and load on to analyzer but make sure the test is ordered on the analyzer if not follow steps f-g)
- e. Click the Stat check box if the sample is a STAT.
- f. Select the Add/Remove Tests icon  to open the Tests and Profiles dialog box.
- g. Program the appropriate tests by selecting the Test/Profile buttons.
- h. Select the Insert Rack Icon .
- i. Select any sample track and insert rack into the ACL TOP.



2. If the instrument is busy testing will automatically start. If testing has not started, select the Run icon  to start the analysis if the analyzer does not auto-run.

3. Reporting results




- a. Save sample report reconcile with downtime form.
- b. Reconcile patient results using the using the sample ID number and Rack ID number locate on the sample report versus the actual sample loaded on to the rack.
- c. Write results and patient information on downtime form labels and attach to the downtime form. Document critical calls if necessary with label on the downtime form.
- d. Place in the appropriate place to be faxed.
- e. Once the results have been faxed, retrieve the faxed downtime form and save for reconciliation with transmitted results.



Transmitting results

1. When Interface communication has been reestablished, filter results from the time downtime initiated until the current time.


- a. Select the sample list icon .
- b. Choose Filter .
- c. Choose Set Filter 1 tab.
- d. Select Enable filter by ordered date and time and select OK.






2. Sort sample list by validation Status and validate making note of criticals and linearity results to be documented or resulted.


- a. Verify that the scroll list is all the way to the top.
- b. Single click validation status  column header.
- c. Select all samples with no validation status .
- d. Validate the samples by selecting  from the toolbar.



NOTE: Be sure to select the **Validate** icon  from the **Toolbar** not the  at the top of the **Validation Status** column as it is only a column header.

3. Validate partial results.

- a. Double click the sample id number on partially validated samples  open the samples details portion of the screen.
- b. Select the test that needs to be validated by placing a check mark in the column next to the test.


Test Information										Patient Demographics			
Tests	Date		<input checked="" type="checkbox"/>					Unit 1	Unit 2	Unit 3	Unit 4		
Fib-C	08/17/2011	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				328 mg/dl					
PT-RP	08/17/2011	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QC			13.1 s	1.11 INR				
APTT-S5	08/17/2011	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				37.4 s					

- c. Validate the samples by selecting  from the toolbar.
4. Although reconnectivity has been established it **may** be necessary to transmit results from the analyzer to the LIS.
 - a. If necessary filter the sample list for the desired time span.

- i. Select the sample list icon .
- ii. Choose Filter .
- iii. Choose Set Filter 1 tab.
- iv. Select Enable filter by ordered date and time and select OK.

5. Place a check mark in the column next to the sample id.

ACE TOP Family SYS EVAL 07 06 11 [Sample List]					
Instrument	Actions	Analysis	QC	Calibration	NPP
Sample ID		Date & Time			Status
45-443444444	<input type="checkbox"/>	07/30/2007 18:35:41			COMPLETED
45-443444444	<input type="checkbox"/>	07/30/2007 18:35:35			PENDING
45-443444444	<input type="checkbox"/>	07/30/2007 18:35:29			PENDING

6. Select the upload icon  from the toolbar to transmit results to the LIS.
7. Make sure that comments and Linearity are properly resulted. All critical and linearity results will hold in Cerner allowing for documentation.
8. Reconcile all results have been reported were transmitted and reported properly
9. Pull a WCP report and follow up on any result that are present.

COAGULATION DOWNTIME RESULT FORM

St. Joseph Medical Center Tacoma, WA
 St. Clare Hospital Lakewood, WA
 St. Elizabeth Hospital Enumclaw, WA
 St. Francis Hospital Federal Way, WA
 St. Anthony Hospital Glg Harbor, WA
 PSC

Test	Normal Reference Range	Critical Value	Patient Result	Units
Protime (seconds)	PT Normal Range: 9.3-12.2 St. Anthony Hospital Only: PT Normal Range: 11.9-14.7	>5.0 INR	PT:	Seconds
	Recommended Therapeutic Range for Oral Anticoagulant Therapy INR Venous thrombosis/Pulmonary Emboli 2.0-3.0 Atrial Fibrillation 2.0-3.0 Myocardial Infarction 2.0-3.0 Recurrent Systemic Emboli 2.0-3.0 Mechanical Prosthetic Heart Valve 2.5-3.5		INR:	
PTT (Seconds)	PTT Normal range: 26-36 seconds (Non-Heparin)	>60 sec		Seconds
Fibrinogen (mg/dl)	Fib Normal range: 180-402 mg/dl	<50 mg/dl		mg/dL
D-Dimer (ng/mL D-DU)	D-Dimer Normal range: 150-243 ng/mL D-DU NOTE: negative cutoff: 230 ng/ml D-DU In studies of patients with low pre-test probability for DVT or PE, using a cut-off value of 230 ng/mL D-DU, the Negative Predictive Value (NPV) and Sensitivity of HemosIL D-Dimer HS were nearly 100% for both DVT and PE.			ng/mL
TT (seconds)	Normal range: 11-15 seconds			Seconds
Heparin Assay UFH	Therapeutic Range: 0.30-0.70 IU/ml	> 1.00 IU/mL		Seconds
Heparin Assay LMWH	Therapeutic Range: 0.50-1.20 IU/ml	> 1.69 IU/mL		IU/mL
TECH ID:				
Comments				
Collection Date	Collection Time	Pt location	ACCN #	Name MRN/ DOB or EPIC or STAR Label

What to do during an EPIC, Interface, or Cerner Downtime

URINALYSIS DEPARTMENT→IRIS

Downtime:→Running Samples:

- Run samples in STAT mode tray and slide forward until you hear a soft click
- Press Stat key and No. twice
- Type in 5-digit acc# on dotted line and press enter
- Press Start to run test
- Use EPIC/Cerner lab labels to identify each printout (Full name, MRN, DOB, Location).

Recovery:

- **Resending Results:**
 - Click on Found List
 - Click on Search (bottom right)
 - Clear all information from the fields that is already there
 - Filter by date/time of downtime
 - Click ok
 - Double click on desired accn # to bring up report
 - Click on Re-Report
 - Individual Reports
 - Uncheck "Screen"
 - Check "LIS"
 - **Note:** Results that do not require a microscopic/review will autoverify
 - **Note:** Go to TSA to manually enter microscopic results

Downtime- Blood Bank

- **Log transported (UST/USL) units on downtime logs**
- **Log units issued (DIS) on downtime log**
- **Log FFP thawed on downtime log and take a picture of the unit face label for modifying later in MOD**

<small>CATHOLIC HEALTH INITIATIVES</small> Franciscan Health System St. Clare Hospital Lakewood, WA St. Francis Hospital Federal Way, WA St. Joseph Medical Center Tacoma, WA FMG Clinic Enumclaw, WA FMG Clinic Gig Harbor, WA	WORK INSTRUCTION	DOCUMENT NUMBER C,F-W-TS0319-01
		Copy ID J02, C01, F01
		Unauthorized use or copying of this document is prohibited by FHS.
DOWNTIME SHIPPING, RECEIVING, AND ISSUING AT REMOTE SITES		

PURPOSE

To provide instructions for shipping, receiving, and issuing units when the Cerner System is inoperable.

SUPPLIES / EQUIPMENT

1. File boxes for current type and screens and type and crossmatch Patient testing records.
2. Downtime Inventory Shipping Log R-F-TS1035-01
3. Downtime Inventory Receiving Log R-F-TS1034-01
4. Downtime Issue Log R-F-TS1036-01
5. Blank Transfusion Record Forms

ORDERS

When Cerner is down, all orders are submitted on manual requisitions to the specimen center. The Specimen center will send a copy of the manual requisition to the Transfusion Service at SJMC. The Transfusion Service will assign a downtime accession number and log the specimen on the downtime log.

PREVIOUS HISTORY CHECK

1. Check the file boxes for current samples and / or testing records on the patient.
2. If there are no current testing records, call SJMC Transfusion Service, 127-6654. SJMC will be able to access a downtime patient history file.

REMOTE CROSSMATCHES

1. When Cerner is inoperable, Transfusion Record Forms for crossmatches on remote units will be faxed from SJMC to the remote site (SCH or SFH).
2. The remote site will then label the unit just as though the Transfusion Record had printed the way it does when Cerner is operational. See (Labeling a Unit After Remote Crossmatch, C,F-TS0132-00.)

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DOWNTIME SHIPPING, RECEIVING, AND ISSUING AT REMOTE SITES		

ISSUING

1. Verify the order by having the courier read the name and medical record number from the Physician Pre-printed Order Form.
2. Issue units by handwriting the information from the Patient Testing Record and the Transfusion Record Form on the Downtime Issue Log.
3. Have the courier read the information from the unit and the Transfusion Record as you check the information on the Downtime Issue Log.
3. Sign the Downtime Issue Log, and have the courier sign the appropriate space on the Downtime Issue Log.

RECEIVING AND SHIPPING COMPONENTS

1. Remove a unit number sticker from each unit being received or shipped, and place the number on the Downtime Inventory Receiving Log, or the Downtime Inventory Shipping Log.
2. Record the following information on the appropriate inventory log:
 - Date and time
 - Unit ABO Rh
 - Unit expiration date
 - Component
 - Destination if units are being shipped
 - "Received from" for units being received
 - Tech ID

WHEN THE COMPUTER COMES BACK UP

1. When the Cerner System has come back up, order the tests from the downtime requisitions and downtime accession numbers.
2. Send the labels to the SJMC Transfusion Service, so the testing that has been performed during downtime can be backloaded into the Cerner system.
3. PIM or USL any units on the Downtime Inventory Receiving Log, using the time they were received as the received time. **NOTE:** this must be done before patient testing is entered.

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DOWNTIME SHIPPING, RECEIVING, AND ISSUING AT REMOTE SITES		

4. Dispense any units that were issued on the Downtime Inventory Issue Log, using the time they were actually dispensed.
5. UST or FDE any units that appear on the Downtime Inventory Shipping Log.

REFERENCES

AABB Standards for Blood Banks and Transfusion Services, 22nd Edition