TRAINING UPDATE

Lab Location:	SGMC, WAH & GEC	**Date Distributed:**	1/3/2019
Department:	Core Lab	**Due Date:**	1/31/2019
		Implementation:	**1/15/2019**

DESCRIPTION OF REVISION

Name of procedure:

Computer Downtime, Core Lab SGAH.L1024 v0

Downtime Worksheet, Microbiology Blood Cultures AG.F429.0

Description of change(s):

This is a new SOP written to describe the processes for when computer systems are down. It includes the steps to use DI to enter orders and print patient reports.

The log replaces an older form and is now under document control.

This SOP & FORM will be implemented on January 15, 2019

Document your compliance with this training update by taking the quiz in the MTS system.

Non-Technical SOP

Title	**Computer Downtime, Core Lab**	
Prepared by	Stephanie Codina	Date: 8.17.2018
Owner	Robert SanLuis	Date: 8.17.2018

Laboratory Approval		
Print Name and Title	**Signature**	**Date**
Refer to the electronic signature page for approval and approval dates.		
Local Issue Date:	Local Effective Date:	

Review:		
Print Name	**Signature**	**Date**

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1. PURPOSE

To outline the steps that will be taken to test and result specimens and report results during periods of computer downtime.

2. SCOPE

This procedure applies to any scenario where a computer system is down and cannot be used to order and process specimens for testing.

3. RESPONSIBILITY

All core laboratory staff members must understand and adhere to this procedure during periods of computer downtime.

4. DEFINITIONS

Adventist Computer Helpdesk: Contact at x6440 or via email at helpdesk@adventisthealthcare.com

Quest Computer Helpdesk: 877-537-8378

5. PROCEDURE

A. General Information

Step	Action
1	Core lab staff members play a critical role in the success of a downtime event. All staff must be aware of downtime processes and be able to quickly identify an unplanned downtime.
2	Downtime supplies and forms are maintained in the downtime cart located in the processing area. The department supervisor is responsible for ensuring the cart is always ready for an unplanned downtime and contains all supplies needed including the pre-printed downtime accession labels.

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Step	Action
3	The following people should be notified immediately when an unplanned downtime occurs: A. Notify the Supervisor on duty or Administrator on call. This person is responsible for notifying customers and providing resources (including additional staffing) as needed to manage downtime processes. B. Notify the LIS on duty or on call. This person is responsible for turning on printers, managing additional notifications, and troubleshooting issues.
4	Processing will assign an accession number to each specimen. Each specimen will be labeled with the following information: A. Patient's full name B. Patient's MRN or FIN C. Patient's birthdate D. Patient's gender E. Patient's location F. Test's ordered on that specimen G. Downtime accession number H. Tech code of person receiving I. Stat specimens will contain a "Stat" label.
5	For known downtimes, each department will print a pending log before the computers go down. Staff must ensure all specimens on the pending log get tested and results forwarded to the patient care area.
6	For unknown or extended downtimes and when the laboratory is not receiving necessary forms or information, we may want to consider requesting an emergency huddle or activation of the command center to quickly disseminate information. It is IMPERATIVE that staff communicate with the management team as quickly as possible when problems occur. The management team will work to correct issues before they become major problems.

B. Activating Printers When Cerner is Down and Sunquest is Functioning

Step	Action
1	The LIS staff member on call is responsible for activating the printers to ensure results are printed to the ED. Printers will be activated when Sunquest is functioning, but Cerner is down.
2	The printers must be deactivated when the computers are functional.

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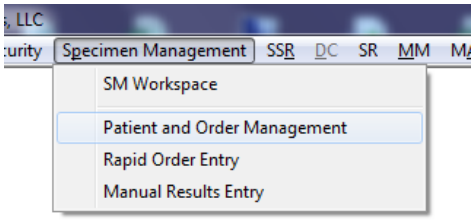
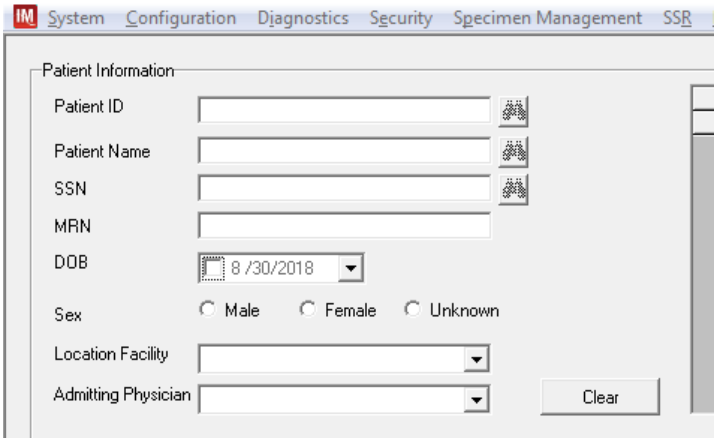
C. Entering Orders into Data Innovations During a Sunquest Downtime

Step	Action
Technical staff members will be responsible for ordering testing in the data innovations (DI) system. Specimens will not cross into DI until they have been received in the lab system. Specimens that were ordered, but not received, prior to downtime will need to be manually entered into DI.	
1	Log into Instrument Manager.
2	At the top of the screen, click on "Specimen Management" and select "Patient and Order Management" from the dropdown menu. 
3	At the "Patient ID" prompt, scan or type the patient's medical record number then click on the binoculars. A. If the patient name displays, verify that the name matches the name on the specimen. B. If the patient name does not display, complete the following fields. a. Patient name using format last,first. b. Patient date of birth (click on the square in the entry to open the field). c. Patient sex/gender. 
4	At the "Location Facility" prompt, enter one of the following: A. For ED patients, enter one of the following, a. Enter "SED" for Shady Grove ED. b. Enter "WED" for Washington Adventist ED. c. Enter "GEC" for Germantown Emergency Center. B. For other patients, enter the nursing unit and bed using the dropdown menu to assist.

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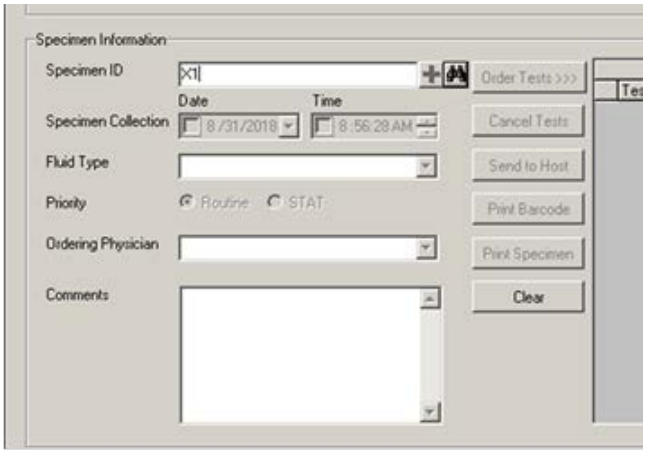
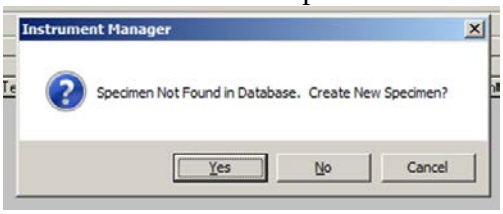
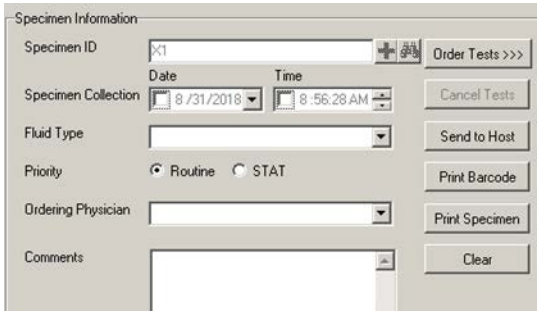
Step	Action
5	Leave the "Admitting Physician" field blank.
6	At the "Specimen ID" prompt, scan the accession number into the field and click on the binoculars. If you type the number, you must convert to the full numeric value. A. The letter A translates to 0800 B. The letter Z translates to 0900 C. Accession A1234 would be typed as 08001234 and accession Z1234 would be typed as 09001234.  A pop-up message will appear if the accession is not in the database. Click "Yes" to create a new specimen and clear the message. 
7	Enter the specimen collect date and time. Click on the square in front of the entry to open the field. A. Use the regular (non-military) time. B. Select "am" or "pm."

<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>8</td><td>At the “Fluid Type” prompt, you must enter the following. Leave the field blank for all other tests.
<table>
<tr><th>Fluid Type Code</th><th>Test Ordered</th></tr>
<tr><td>PL</td><td>• PT
• PTT1
• TT
• DDIMER
• FIBR
• All chemistry tests not noted below</td></tr>
<tr><td>SE</td><td>• FCREAT
• GLUCN
• FGLUC
• CBIL
• SYNUA
• LI
• SALIC</td></tr>
<tr><td>CSF</td><td>• CTP
• CGLUC</td></tr>
<tr><td>WB</td><td>• HA1C</td></tr>
<tr><td>OT</td><td>• BNP
• IOIPTH
• ITPTH</td></tr>
<tr><td>UR</td><td>• All urines</td></tr>
</table></td></tr>
<tr><td>9</td><td>Click on the “Order Tests” button.

</td></tr>
</table>

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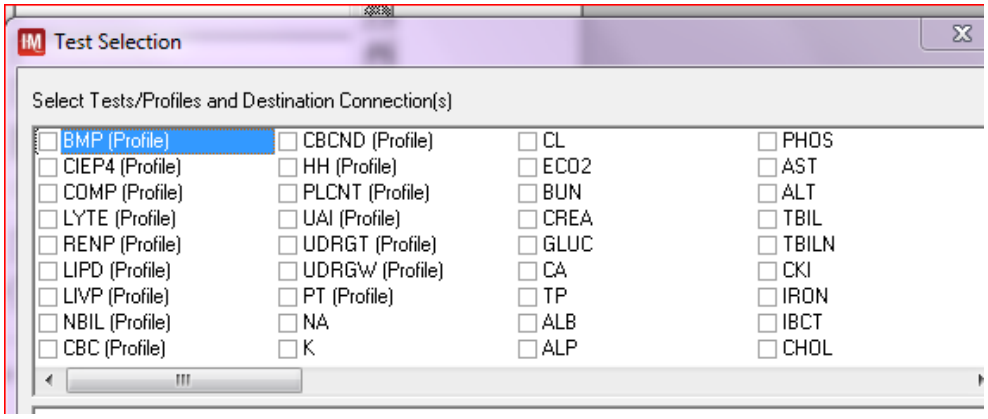
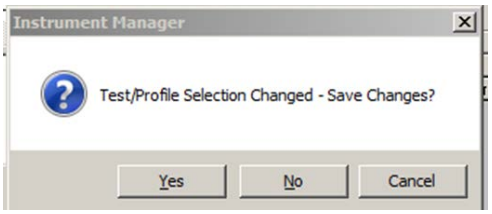
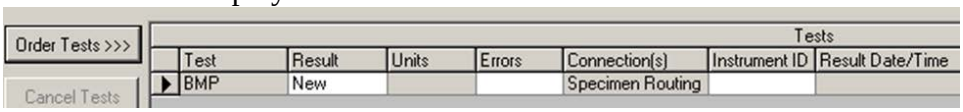
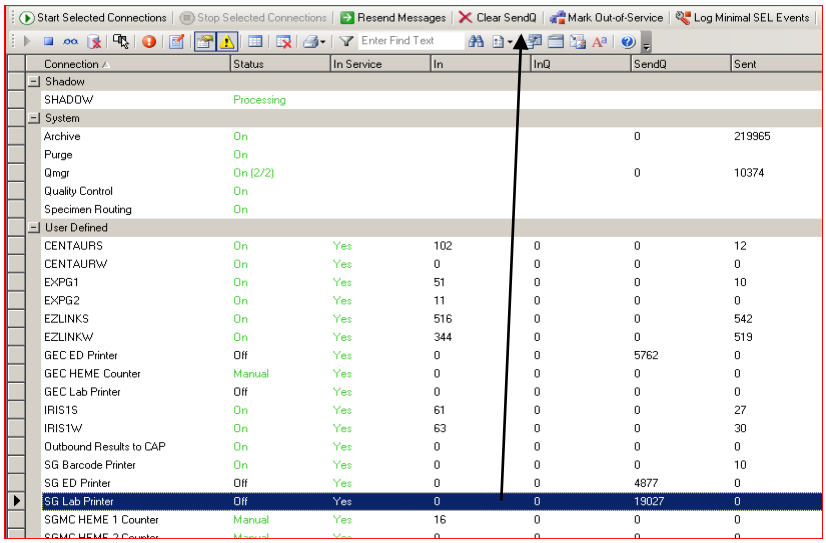
Step	Action
10	Click on the tests that have been ordered on the accession number, then click the "Close" button. The screen can be enlarged by clicking the expand button.  
11	A pop-up message will display. Click "Yes" to save orders. 
12	The order will display. Click the "Save" button. 
13	DI will transmit the orders to the instrument. Perform testing per procedure.

D. Printing Results from Data Innovations during a Sunquest Downtime

Step	Action
1	Data Innovations can be used to generate laboratory reports when Sunquest is not available. Reports can be printed to the ED and laboratory. Reports printed in the laboratory may be faxed to the nursing unit and/or delivered by volunteers or other personnel.

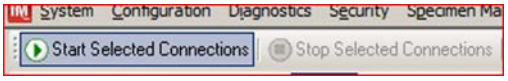
Step	Action
2	Activate the printers for DI reports one hour before a planned downtime or as soon as possible once an unplanned downtime is identified. A. Access the main screen of DI. B. Click on “System” and select “Status” from the dropdown menu. C. The computer connections will display. D. Highlight the printer connection to be turned on. a. Click on “Clear SendQ” at the top of the screen.

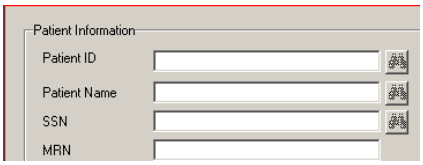
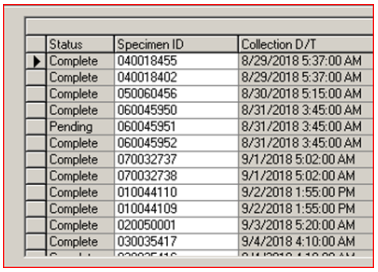
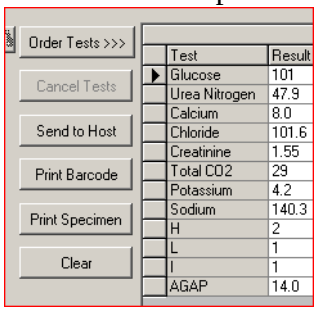
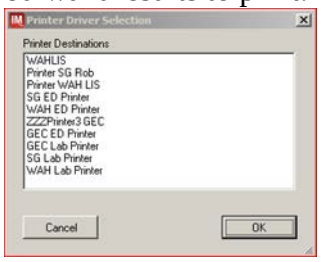


Connection	Status	In Service	In	InQ	SendQ	Sent
Shadow						
SHADOW	Processing					
System						
Archive	On				0	219965
Purge	On					
Qmgr	On (2/2)				0	10374
Quality Control	On					
Specimen Routing	On					
User Defined						
CENTAURS	On	Yes	102	0	0	12
CENTAURW	On	Yes	0	0	0	0
EXPG1	On	Yes	51	0	0	10
EXPG2	On	Yes	11	0	0	0
EZLINKS	On	Yes	516	0	0	542
EZLINKW	On	Yes	344	0	0	519
GEC ED Printer	Off	Yes	0	0	5762	0
GEC HEME Counter	Manual	Yes	0	0	0	0
GEC Lab Printer	Off	Yes	0	0	0	0
IRIS1S	On	Yes	61	0	0	27
IRIS1W	On	Yes	63	0	0	30
Outbound Results to CAP	On	Yes	0	0	0	0
SG Barcode Printer	On	Yes	0	0	0	10
SG ED Printer	Off	Yes	0	0	4877	0
SG Lab Printer	Off	Yes	0	0	19027	0
SGMC HEME 1 Counter	Manual	Yes	16	0	0	0

b. The message, “Clear SendQ for this Connection?” will appear. Click “Yes.”

c. Click “Start Selected Connections.”



Step	Action
3	Print a report. A. From the main screen of DI, select, "Specimen Management." B. Select "Order and Patient Management." C. At the "Patient ID" prompt, type the patient's medical record number, then click on the binoculars.  D. A list of specimens for that patient will appear. Click once on the appropriate accession number to highlight. Then right click to open the menu.  E. The results of the specimen selected will display on the bottom of the screen. Review the report to ensure these are the results you wish to print. F. Click the "Print Specimen" button to print results.  G. A "printer selection" window will appear. Select the printer to which you want results to print. Then, click, "OK." 

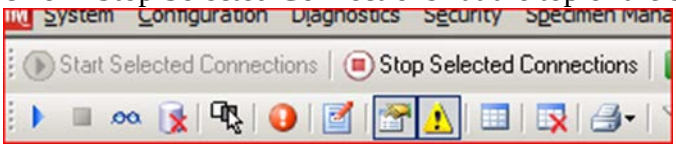
E. Microbiology Orders during a Sunquest Downtime

Step	Action
1	The Processing department will accession each microbiology culture on its own accession number. The culture specimen, requisition, and extra downtime accession labels will be forwarded to microbiology during a downtime event.
2	File the downtime requisition in the patient orders accordion file alphabetically by last name. This file will be located in the processing area to keep all patient orders in one location. **No employee should remove a downtime requisition from the accordion file.** Forms may be referenced as needed for testing and responding to queries.
3	Microbiology staff members will verify the specimen and culture type requested and prepare culture plates/gram stain as required. Each culture plate must contain the following information: A. Patient's full name B. Patient's medical record number C. Accession number (A or Z number) D. Collect date and time
3	Document the date and time the culture was set up on the outside of any anaerobic bag that is prepared. Ensure the bags are kept separate from other cultures. The bags will only maintain anaerobic conditions for 24 hours. Any bag that reaches 12 hours from set-up must be referred to Quest diagnostics on a downtime form before computers are operational.
4	Blood Cultures: A. Only Technical Staff will load blood culture bottles into the Bactec instruments. B. Log each blood culture on the "Downtime Worksheet—Microbiology Blood Cultures" by documenting the downtime accession number, patient name, type of bottle (aerobic, anaerobic, or pediatric) and the sequence number of the bottle. C. Load the bottles by scanning the bottle sequence barcode and the downtime accession (A or Z) label. D. Place the blood culture bottle into the Bactec. E. Document on the log the cabinet, row, and location of the blood culture on the form. For example, if you loaded a blood culture in cabinet 3, row E, location 7, you would write "3/E07." F. The demographic information will load when Sunquest is restored and the order is entered.

F. Resulting Manual Testing During a Sunquest Downtime

Step	Action
1	All manual tests will be documented per procedure.
2	Results will be transcribed to a downtime report form.
3	The completed downtime report forms will be provided to the patient care area.
4	Results will be manually entered into Sunquest when the computers are functional.

G. Recovery

Step	Action
1	Recovery will take place when Sunquest is restored.
2	The processing department will order all downtime requisitions into Sunquest. Technical staff will result testing. Please note that new specimens will be arriving for accessioning and testing while we are recovering from the downtime. Staff will need to pull and resolve pending logs frequently to ensure all specimens get resulted.
3	Turn off DI printing. A. Access the main screen of DI. B. Click on "System" and select "Status" from the dropdown menu. C. The computer connections will display. D. Highlight the printer connection to be turned on. a. Click on "Stop Selected Connections" at the top of the screen.  b. The connection will change from "on" to "off."

6. RELATED DOCUMENTS

Downtime Core Lab Interim Report (AG.F418)
Downtime Urinalysis Interim Report (AG.F419)
Downtime Micro/Serology Interim Report (AG.F420)
Downtime Core Lab Interim Report, GEC (AG.F421)
Downtime Blood Gas Interim Report, GEC (AG.F422)
Downtime Worksheet, Microbiology Blood Cultures (AG.F429)

7. REFERENCES

N/A

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By

9. ADDENDA AND APPENDICES

A. Specimen Receipt

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Addendum A

Specimen Receipt

Step	Action
1	Document the following information on the downtime form, A. From the specimen container or tube a. Collect date b. Collect time c. Collected by code B. Enter the current information for a. Received date b. Received time C. Ensure that all tests have enough information to be properly ordered during recovery. For example, if a carboxyhemoglobin is ordered, we need to document whether the specimen received was venous or arterial. If a drug level is ordered, we must indicate whether it is peak, trough, or random.
2	Assign one or more downtime accession number (A or Z number) to the specimens. Labels are pre-printed and stored in the downtime cart.  Notes: A. Each specimen type [plasma, serum (Salic, Li, etc.), EDTA whole blood, urine, etc.] must be placed on a separate accession number. **Note**: Coag and Chemistry plasma samples can be placed on the same accession number. B. Tests that will be sent to another Adventist lab (i.e., from WAH to SGMC or vice versa) will be placed on its own accession number. C. Tests going to the **State of Maryland** (NBS, NBSR, and Zika) should each be placed on their own accession number. D. **Quest tests** should be given separate accession numbers as follows: a. Each microbiology culture or test will be placed in its own accession. b. Each specimen type (blood, serum, EDTA whole blood, etc.) will go on a separate accession number. c. Each miscellaneous test will be placed on its own accession number.

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☐ Shady Grove Medical Center
☐ Washington Adventist Hospital

Downtime Worksheet – Microbiology Blood Cultures

Z or A Accession #	Name	Aer/Ana/Ped	Bottle Sequence Number	Bactec Bottle Location Example: 4/E07