# James Lab Down Time Policy

Department of Clinical Laboratories
The Ohio State University Wexner Medical Center

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**Approval*: 
Laboratory Medical Director(s): University Hospitals Medical Director

***Approval and Acknowledgements* 
Refer to QPulse system and Document Details report for laboratory directors(s)’ electronic signature approval, employee acknowledgment and effective date.
1. POLICY
   1.1. Policy for use during “down time” situations within the laboratory.

2. PURPOSE OF DOCUMENT
   2.1. This procedure is to be utilized in the event of laboratory “downtime”. “Downtime” refers to the loss of
       the ability to run, transmit, report, call patient results, etc. This can be due to computer based information
       malfunction, loss of phone system, power loss, loss of the instrument feed water system, etc.
   2.2. Each “down time” situation is unique in some way, this document is designed to give guidance in each
       area and not necessarily to be followed precisely which is dependent on the situation occurring.

3. SCOPE OF DOCUMENT
   3.1. To be used by James Laboratory personnel in the event of a down time situation.

4. RESPONSIBILITY
   4.1. James Lead Technologist, Safety Officer, and Laboratory Manager.

5. INSTRUMENT DOWN TIME
   5.1. Back up Instruments
       5.1.1. If there is an instrument that is unable to be used due to maintenance or it is in need of repair
             specimens should be run on other available instruments that are located in the James Lab. For those
             areas that we do not have a backup unit (Compact Max, Advantus and Centaur XP) specimens
             should be sent to CCL.
       5.1.2. PRIOR to sending specimens to CCL, the codes will need to be changed to CCL test codes.
   5.2. Changing Test Codes
       5.2.1. For any testing that cannot be performed, credit the James codes with “ MAINX” (Sent to Main lab)
       5.2.2. Re-Requisition the specimen with the CCL Main Lab code
               a. A list of main codes can be found in Qpulse and in the Disaster_Downtime folder of the James
                  Tower Lab
               b. Use the collect time on the James label
               c. Use the current time (N) as the receive time
               d. Find the ICD-10 code using the patient’s MRN in the IQ Function of LabsProd
   5.3. Batch and send specimens to CCL Main Lab after calling CPA 3-3531 and the appropriate CCL bench
       area. A list of their phone numbers can be found: L:\Shared\Pathology\James Tower Lab\Clerical - See
       the phone lists
   5.4. Contact the James / ED units to inform them of the potential for delay in results.

6. COMPUTER DOWN TIME
   6.1. James Laboratory basic overview and general information for LIS down times
       6.1.1. Page LIS on call PAGE # 9735 when you realize information is not transmitting.
       6.1.2. When LIS is down, labels will not print on the nursing unit for timed draws. Stat and collect now
             labels will not print on the nursing units. Specimens will be sent with a screen print from IHIS or a
             manual lab requisition. CPA will process specimens according to the LIS downtime procedure.
       6.1.3. Make sure your instruments are set to “Print All” functions (see specific instructions for each area)
6.1.4. **After 15 minutes of down time call the ED** charge nurse to inform them of the situation

6.1.5. **Fax all ED patient Print outs to appropriate area**
   a. ED Primary fax: 5-7108  Backup fax: 2-4391
   b. CDU (Clinical Decision Unit) fax: 293-1302
   c. See LIS Down Time Flow Chart for more information about calling floors to inform them of the down time situation.

6.1.6. If an unplanned LIS downtime has occurred and is still down after 45 minutes please notify lead tech or Manager to inform them of the situation.

6.1.7. Specimens ordered before LIS down time may run as usual but may not transmit from the instrument to file results. If the barcodes are unable to read on the instrument you will need to manually program them by CID to run on the instruments.

6.1.8. Label all result print outs with patient information.

6.1.9. Check all results for critical values and call them and document them on the result printouts.

6.1.10. Keep results print outs organized in a way that should be easy to understand when things are working again to get results entered into the computer. This can be alphabetical order or in the order they were run on the instruments.

6.1.11. Once the LIS is back up:
   a. Wait for the processing area to assign each sample its accession number
   b. File results by having them transmit from the instrument or entering them into the LIS manually if they will not transmit from the instruments. If the downtime label CID numbers are transmitting, you may have to type in the newly assigned accession number for each sample that you get from Processing area.
   c. Switch the instruments back to how they were set to print before the LIS went down.
   d. Make sure all samples are assigned a rack location. When you are re-racking down time label tubes it will ask you for the specimen type. i.e. Enter TJ, RJ, LJ or BJ
   e. Pull a pending log
   f. See individual downtime instructions for additional information on specific areas

6.2. **Location of downtime labels**
   6.2.1. Downtime labels are located in the BLACK TOOL BOX that is located on the DIFF counter.
   6.2.2. Labels are generated by the LIS staff. If supplies are low, call 38472 for replacements.

6.3. **How to use them:**
   6.3.1. Specimens will be dropped off or tubed to the laboratory as normal.
   6.3.2. Processing area will be the primary area to fill out the down time labels.
   6.3.3. The large CID label (Diagram 1) is to be placed on each specimen type that is sent.
      a. On the large CID label write:
         • **Patient name, MRN, Nursing Unit or Location.**
         • **Test(s) ordered – only tests that pertain to that specimen type should be noted together on one CID**
         • Label the specimen priority (i.e. Stat or ED). Leave routine specimens un-marked Put the large CID barcode label on the tube leaving any patient bed side label visible
      b. Repeat the process for each tube type on a single requisition.
6.3.4. Place the small CID corresponding to a particular tube type on the requisition. (One requisition can have more than one CID).
   a. Write the tests associated with the CID and tube type on this label.
   b. Repeat this process for each tube type on a single requisition.
   c. Ensure that all tests are listed.
   d. Hand the barcoded labeled tubes to the appropriate testing area.

6.4 General Testing Down Time Label Specimens Information

6.4.1 Turn all instruments that will be performing testing during the down time to print ALL. Any specimens run since the LIS went down will need to be printed.
6.4.2 All patient samples from the Emergency Department (ED) will need to be called to the ED during the down time since the results will not be available in IHIS.
6.4.3 All critical values will need to be called and documented on the paper print outs, so the information can be added to the results when the computers are back up and available.
6.4.4 The instruments will be able to read the Down Time Barcodes, however it will not be able to know what testing is required. The tests in most situations will need to be programmed manually. See individual instrument section for specifics on how to program.
6.4.5 Keep the area organized and have a system to know which samples were tested and in what order. When the system comes back up the order that the samples were run will be the order that they will be transmitted.
6.4.6 Program in the patient sample using the Down Time CID that is listed on the label i.e. L10003185 (See Diagram 1). If you do not use the CID, the results will not align and you will have major problem matching orders to results.
6.4.7 See the individual procedures and the down time procedure for further details.
6.4.8 Store the requisitions in the order they were processed. These requisitions will be used to enter the patient orders when Sunquest is back on-line. All requisitions will need to be saved in the fireproof box.
6.4.9 All instrument print outs will need to be saved in a fireproof box.
6.5 When Sunquest Computer System is Working:

6.5.1 Processing will have to enter the Down Time Patient requisitions into Sunquest before James can file the results.
   a. Order entry in Labs Prod
   b. Enter patient medical record number
   c. Select the Encounter (should be current date)
   d. Enter: Collect Date/Time, Received Date/Time and Tests are entered according to the standard order entry procedure.
   e. For outpatients you will need the ICD-10 Code

6.5.2 Write the accession number on the requisition for future reference.

6.5.3 **DO NOT AUTO** assign the accession number. This screen has a small box in the lower left side, labeled “Manually Assign CID’s”. Click on this box. Assign the accession number in the usual manner and save.

6.5.4 The ordered tests will appear in the “Order Code” field and the “Container ID” field will be highlighted in yellow.

6.5.5 Type in the CID number, from the requisition label, for each test ordered. Click on the “Add” button. Repeat until all tests have been assigned CID numbers. (Note: If all tests go onto one CID, click on the add button as each tests appears. The CID number does not need to be typed in each time.)

6.5.6 Click on “OK”.

6.5.7 Repeat for all requisitions that were generated during the Sunquest downtime. When all requisitions are completed, resume the normal order entry process.

6.5.8 After Processing enters the down time requisitions, go into the LIS and the cups with the CIDs that were run during the down time will come across.

6.5.9 You will need to retype the CID in some cases in order for the results to come across.

6.5.10 If you ran any specimens that had a barcode generated from before the downtime those should automatically come across the interface without you retyping the CID.

6.5.11 Make sure that you modify results with information such as whom you called results to during the down time in general or for critical values.

6.5.12 Store all paper print outs from the downtime in the appropriate boxes where other instrument print outs are stored.

6.6 Racking Tubes

6.6.1 When you rack down time label tubes it will ask you for the specimen type. Enter TJ, RJ, LJ or BJ.

7.0 Coagulation Area:

7.1 Load patient samples: **Remove cap.** Click **Patient Analyses** then **Loading Samples** or click the icon to open the sample drawer. After the drawer opens, identify the type of specimen, such as micro-sample and/or stat (urgent) by clicking the box. Identify the sample by scanning the bar-code or manually entering the ID using the keyboard, place the specimen into the drawer. Then click the icon.

7.2 If the LIS is down and downloading is inoperable, change to manual mode where the operator must order the test(s) from the menu. Scan the barcode. “Select Methodologies” screen is displayed. Choose a profile or choose tests from the Methodologies menu by double-clicking. Click confirm.

7.3 All patient results are displayed on the TEST PANEL screen and automatically print out and transmit if so selected on the system status screen.

7.4 If LIS is down, printouts can be faxed to each unit. Ensure that the patient’s MR number and location are on each printout.
7.5 When the LIS system is again operational, select the “Patient Files” option under “Patient Analysis” and transmit results by selecting the desired results as “first file” and “last file”.

7.6 For results in question that need operator intervention, cursor to the identification number in the TEST PANEL screen and double click. This will display the Patient Analyses screen. Follow the options at the bottom of the screen, (i.e. – rerun, add, etc).

8.0 Hematology Area:

8.1 Report WAM downtime to CCL Hematology at 293-3444
8.1.1 Refer to 5L Heme-33 Hematology Downtime Policy.

9.0 Urinalysis Area:

9.1 In the event of laboratory information systems downtime use the Clinitek Advantus.
9.1.1 If running samples on the Advantus make sure to press the print results button at the results screen
9.1.2 Take the printouts from the Advantus and perform microscopic analyses.
9.1.3 Record the results of the microscopic analyses, along with the patient names, medical record number, and location on Advantus printouts.
9.1.4 Call any panic values to the nursing unit or patient location. Record the date, time, name and title of person taking the call.

10.0 All Manual Tests:

10.1 Perform the tests entered manually and record information on the Downtime Manual Test Log (James F-66) for that area using the down time label CID number instead of the accession number on the sheet.
10.2 Call any critical values to the floor and document name, date and time of phone call on the manual test log sheet.
10.3 When the Laboratory Information System has been restored and all order entry has been completed by CPA, file results in the LIS, function: MEM.
10.4 Review a pending log to ensure that all results have an order and all orders have results.

11.0 Chemistry AU Area:

11.1 Set instrument to print all patient reports:
11.1.1 When Laboratory Information Systems (LIS) is down, you will need to print patient results
11.1.2 Instrument will need to be in “Standby”
11.1.3 Under the “Menu List”, select SYSTEM, FORMAT, LIST FORMAT
11.1.4 Under the BASIC CONDITION tab, select EDIT, REALTIME LIST
11.1.5 Change the patient list from NONE using the dropdown tab to FORMAL RPT, select OK
11.1.6 Select CONFIRM
11.1.7 All patient reports will print after you select confirm.
11.1.8 AU680 patient print outs can be faxed to locations as applicable. Please write the fax number that it was sent to and note that in the computer when the results are able to be filled in the LIS.
11.1.9 After the down time, please set the instrument back to print NONE for patient reports.

11.2 Print patient result that have already run on the instrument
11.2.1 The instrument does not have to be in STANDBY to perform this function
11.2.2 In the HOME Screen select “User Menu” select “Print / View Sample Data”
11.2.3 In the MAIN tab select “Select Samples Individually”
11.2.4 Highlight patient results to be printed
11.2.5 Select “Print”
11.2.6 In the dropdown menu next to the DATA LIST NO. select “Formal RPT”
11.2.7 Select “OK”

11.3 Manually program patient samples
11.3.1 From the Home Screen, select
11.3.2 “Rack Requisition Sample” (Located at the bottom of the Home Screen)
   a. It is important that you have the right sample kind with the right rack
      • Routine = White
      • Emergency = Red
11.3.3 Select START ENTRY tab to program in the following
a. Sample ID- Program in the CID that is noted on the side of the specimen
b. Click to select the tests that were ordered and also LIH so that the index can be run per sample
c. Under the Demographics Tab - it is important to enter the patients Name and medical record number because these print outs can be sent directly to the unit if results are not loading into IHIS
d. Select “ Entry”
e. Exit when you are finished
f. Place the specimen in the correct color of rack and place on rack feeder unit
g. Hit START, measurement will be performed for tests that are ordered

11.4 On- Line ID Errors / Barcode Read Errors
11.4.1 Specimens that arrive with barcodes from before the downtime may not read on the AU680
11.4.2 For these situations, obtain a downtime CID label.
   a. On the label write the old CID and tests that were noted on the original barcode specimen.
11.4.3 Place the downtime CID label on the tube, but do not cover the existing Name and Medical Record number
11.4.4 Follow the process from section 12.3 to program the tests that were ordered.
11.4.5 When the LIS comes back up the results will be crossing with the downtime CID. When this occurs type in the original CID or Accession number to file the results.
12.0 **Centaur Area:**

12.1 Get instruments into READY state

12.2 Set the Centaurs to print all patient results

12.2.1 Select “Setup”, “Summary” from the Centaur main screen.

12.2.2 Select “Print Options” from the Summary screen

12.2.3 Select “Automatic Runtime Results Report”

12.2.4 Select “Save”.

12.2.5 Run specimens in manual mode following the usual procedures

   a. Select **WORKLIST** icon on the Centaur display.
   b. Click on the **SCHEDULE BY SID** in the Worklist-Schedule window.
   c. Add Demographics including patient name, PID (medical record number) and location so it will be on the results printout
   d. Click on the **SID** textbox and type in the sample id <Enter>. ( or Scan)
   e. Click on the **TEST** textbox and type in or select the tests ordered on that sample.
   f. Click on **SAVE**.
   g. Load specimens onto the centaur ensuring the downtime label CID is visible
   h. The centaur will print multiple patients per sheet
   i. Review results printouts and call any stat, life-threat or panic value back to the nursing unit or patient location. Write the date/time and name of person receiving the call on the results printout.
   j. Keep printouts in alphabetical order to allow for fast and easy access to results if needed.
   k. When the LIS function has been restored and all order entry has been completed by Processing, file results in under function OEM.
   l. Modify any result called with the date/time, name and title of person receiving the call.
   m. Review a pending log to ensure that all results have an order and all orders have results.

14. **Unity Real Time Quality Control Program**

14.1 Quality Control entry and evaluation during downtime

14.1.1 If the interface between instrumentation and Unity Real Time is down (Unity Connect), quality control results can be manually entered in Unity for the appropriate instrument/analyte and will be evaluated according to the same rules as if the data were received directly from the instrument.

14.1.2 You can try to reconnect the Watch Folders by hitting the Red Stop Button, this will stop watching folders. Then click on “Watch” which will restart the folders again. If your QC does not crossover again, you can resend your QC from the instrument once the “Watch” folder is connected again.

14.1.3 In the event the entire Unity program is non-functional each department has a Excel spreadsheet that can serve to record and evaluate quality control data. L:\Shared\Pathology\James Tower Lab\UnityReal Time Once Unity is operational the data points can be entered for the required record retention period.

15. **Telephone system down**

15.1 In the event that the phone systems are down and all incoming and outgoing calls within the hospital are compromised. The use of cell phones is permitted to communicate if there are no phones that are operational.

16. **Power outage**
16.1. In the event of a power outage some lights and outlets will be affected
16.2. Back up light kits / Flashlights can be found in the black tool box located on the top of the Fireproof cabinet.
16.3. Electrical outlets will not work or have delays in power
   16.3.1. White outlets will have no power
   16.3.2. Red outlets will have a delay in switching over to the backup power, but will have power
   16.3.3. Blue outlets will have no interruption in power; all essential equipment should be connected to a blue outlet.

17. Instrument AmeriWater/ Tower Equipment Company
17.1. Call service at the first sign of a problem AmeriWater/ Tower Water Company 614-888-6066
   (Site # 0252163482). If a PO is requested give PO listed on front of instrument.
17.2. If there is an error on the system that you can’t get resolved, switch to the Medica Pro to bypass. The red light on the top of the tanks should turn green.
   17.2.1. By-Pass
      a. Normally Open Valves are 1, 2, 4, 5 (Pointed in the way the water flows)
      b. Normally Closed Valves are 3, 6 (Turned to block the flow of water)
      c. Power the Media Unit Down
      d. Open Valve 3 (located on the wall above the Medica Pro) run for 5 minutes, verify you have a green light on the indicator light located at the top of the tank that hangs on the wall, then close the valve.
      e. Close valves 4 & 5 on the Medica Loop-(located on the wall near the AU680)
      f. Open Valve 6-(located on the wall near the AU680)
g. Open the doors of the Medica Pro. Close the valves 1 & 2 these are blue/white that are on the right hand side toward the top.
18. **Stat Screen Monitor**

18.1. If you need to reboot the Stat Screen perform the following

18.1.1. Close all of the open screens by “Clicking” the X in the top right corner
   a. If you are unable to do that please proceed to the next step

18.1.2. In the bottom left hand corner you will find the window icon “Click” on this
18.1.3. A pop up screen will appear with the word Shutdown in the bottom
   a. You can Shut down the PC or select Reboot
   b. When the computer comes back up, look for this icon on the desk top
      - JamesCustom TAT-Short Cut
      “Click” on this ICON to open the display
   c. A screen with the word will appear, “Click” on the words START SCREEN
   d. The Stat Display should appear

19. **RELATED DOCUMENTS**

19.1. Refer to QPulse System or Document Detail Report for related Laboratory Policies, Procedures, and Master Forms