Bassett Healthcare Network

EPIC Beaker Downtime v1.0
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Printed By	Brittany Houghton-Depietro Technical Assistant (M07740)
Organization	Bassett Medical Center Lab

Author
Eric Tietjen

Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Approval	Lab Director	4/14/2023	1.0	John Fisk MD Clinical Laboratory Director (M08480)	
Approval	Lab Director	4/14/2023	1.0	Ghazala Nathu MD Clinical Laboratory Director (S00134)	
Approval	Lab Director	4/13/2023	1.0	Timothy Chapman MD Clinical Laboratory Director (M11669)	
Approval	Lab Director	4/13/2023	1.0	Samantha Davenport MD Service Line Chief (M03764)	
Approval	Lab Director	4/13/2023	1.0	Valerie Bush PhD Clinical Laboratory Director (M05512)	

Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
1.0	Approved and Current	Initial version	4/13/2023	4/14/2023	Indefinite

EPIC BEAKER DOWNTIME

PRIOR TO DOWNTIME

Scheduled Downtime

1. All scheduled downtimes for Epic will be coordinated by IT.
2. IT will provide notification of date, time, and duration to the laboratory administration, as well as the managers and supervisors at all laboratory sites.
3. The laboratory managers and supervisors will assure that all specific downtime supplies, downtime logs/worksheets and other specific tasks are assigned to staff for completion prior to the downtime.

Unscheduled Downtime

An unscheduled downtime occurs when an unexpected event occurs that renders the system unusable and unavailable.

1. If a laboratory staff member has reason to believe there has been a system failure, the charge person should contact the Help Desk (x4750).
   - **Note:** Some indications of system failure might be error messages on the screen, system is running slow, being logged out repeatedly, inability to use the system, or non-functioning devices.

2. IT will make the appropriate contacts to notify users of the downtime and its expected duration.

3. The charge person (or onsite manager/supervisor) will coordinate the downtime activities of the laboratory during the code green.

4. Laboratory management will be notified at the beginning of the code green.
   - **Note:** The Chief Information Officer, Risk/Compliance Manager or others may be notified if deemed necessary by the Chief Pathologist and Administrative Director.

5. In an unscheduled downtime, each hospital floor is responsible for notifying the lab of any scheduled draws.

Tasks to be completed prior to downtime beginning:

a. Paper Forms
   1. Each care area is responsible for ensuring they have their downtime binders stocked and forms **AVAILABLE**. These can be found in the b-Net Lab Manual under EPIC Downtime Documents, or ordered through the print shop.
   2. Manual order requisitions.
   3. Manual accession logs.

b. Draw Lists
   1. Assure that the draw lists of orders that have already been placed in Epic are available during the downtime.
      a) Draw lists can be located in the Epic SRO (Read-Only Mode).
      b) If there are any scheduled phlebotomy draws needed after the downtime has started, the floors are responsible for contacting phlebotomy services.

c. Downtime Specimen Creation
   1. Assure there is an adequate supply of downtime labels printed and available for use.
   2. Each downtime specimen ID should have three labels. (One label will be placed on the specimen, one label will be placed in the appropriate downtime log, and one label will be placed on the instrument printout or paper log in the technical section.)

d. Access to BCA: This device provides key clinical information during the downtime.
   1. Assure that their BCA devices are fully functional. These devices provide access to information that providers may request during downtime.
   2. Assure that a downtime staff member has access to proper training for the BCA device.
   3. The BCA location must be kept in an unlocked and accessible location.
   4. The BCA device must be plugged into an emergency power outlet and be connected directly to a local printer.

e. Quality Control
   1. Each laboratory department should keep an updated reference page of each analytes/assays acceptable range for each level of QC that is performed.
      a) If QC ranges can be viewed on the analyzer, it is not necessary to keep a reference page.
   2. This list should be stored in the downtime binder, near or on the analyzer, or in a designated area that is accessible to all users

f. Autoverification
   1. Prior to the downtime beginning, or as soon as possible after notification of an unscheduled downtime, suspend autoverification in Beaker.
   2. To suspend autoverification: click the ⋯ button in the upper right corner of the outstanding list screen → Select Auto Verification Status → Select the instrument to be disabled using the "Downtime" as the reason.
      - **Note:** During an unscheduled downtime, autoverification will not be able to be suspended. Refer to the **Specimen Resulting** section under **Recovery**.

DOWNTIME

Tasks to be completed during the downtime:

a. Before the start of the downtime, communication will be announced overhead, or an email will be sent to alert all end users. At this time, all end users should switch to downtime procedures.

b. Access to Unity (Epic) Data
   1. Read only access (SRO Environment)
      a) Prior to the Epic downtime, the user should logoff from the **Epic Production (PRD)** environment.
      b) Using assigned network credentials, the user should logon to the **Epic SRO (Read-Only Mode)** environment.
      c) The SRO environment will have a maroon heading and will only allow the user to view the Epic information until the downtime has been completed.
      d) Information not accessible in the SRO environment will be greyed out.

   2. Log in to the BCA Device
      a) Use network credentials to login to the device.
      b) Print desired reports.

c. Specimen Processing
   a) STAT specimens:
      1. STAT specimens should be resulted by downtime procedures immediately.
      2. When specimens arrive in the lab, there will be three downtime stickers for each specimen.
      3. Place one sticker on the downtime log, and one on the specimen. The third label will go to the technical section to be used on the instrument printout.
      4. Run specimen as normal on the instrument.
   b) Routine specimens:
      1. Process (centrifuge/store) as per standard procedure.
      2. During scheduled downtime, routine specimens are typically held for analysis until system is back online.
      3. During prolonged downtime (>2 hours), routine specimens will be processed as downtime specimens. See network lab management for detailed direction.
   c) Chemistry specimens:
      1. To request testing in Remisol during an Epic downtime, refer to the procedure *Downtime Entry for Beckman Chemistry*.
d. Test results:
   1. Each department should keep copies of a blank downtime report form in their downtime binder.
   2. When test results are available on the instrument for a downtime specimen, print a copy of the test results from the analyzer.
   3. Manually fill in the requested tests onto the blank downtime report form, and double check all manual entries.
   4. Call the appropriate clinic or ward to notify of impending downtime test results being faxed to them. Record the name of the person notified, date and time of the call on the downtime report.
   5. Fax downtime report to appropriate clinic or ward with cover page included.
   6. Set aside all faxed downtime reports for the downtime recovery.

e. Quality Control
   a) Scheduled downtime:
      1. If QC needs to be performed during a scheduled downtime, perform QC as per the standard operating procedure.
      2. Check the instrument QC results for QC values and flags, and compare to the QC reference ranges on the analyzer, or on the QC reference page.
         - The QC reference page should state the analyte/assay name, level, and 2 SD range.
      3. If QC is out, follow troubleshooting steps.
      4. If QC is in, proceed to patient testing.
   b) Unscheduled downtime:
      1. In the case of an unscheduled downtime, QC may expire and need to be performed multiple times without being verified in Beaker (i.e. downtime > 8 hours or > 24 hours).
      2. If QC has expired and needs to be performed, perform as per the SOP.
      3. Check the QC results in the instrument or on the QC reference page to verify results are in range and there are no flags.
      4. Print out QC results from the instrument, date, time, and initial, and set printouts aside for future reference.
      5. Document any QC troubleshooting on the instrument printout.
      6. If QC is okay according to the instrument or the QC reference page, proceed to patient testing.

RECOVERY

Tasks to be completed post-downtime:

a. When the downtime is complete, end users may be notified that Epic PRD is ready for use via an

overhead announcement, or an email.

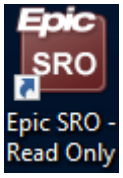
b. Access to Unity (Epic) Data
   1. Once the downtime is complete, log off from **Epic SRO** and log back into **Epic PRD** to resume daily activities as normal.

c. Quality Control
   1. If QC was completed during the downtime, check to make sure all levels of each analyte/assay performed crossed into Beaker.
   2. If QC does not cross, proceed to the following steps:
      1) Resend the QC from the instrument.
      2) Reset the instrument in Instrument Manager (Non-Beckman Instruments).
      3) Reset the instrument in Remisol (Beckman Instruments).
      4) Close out Remisol and restart the RADV monitor (Beckman Instruments).
      5) Reset the instruments Lantronix box.
   3. Enter QC troubleshooting documentation comments as needed, and verify the QC.

d. Specimen Resulting
   1. All routine specimens collected and labeled with a Beaker label prior to downtime, should be received and delivered to the appropriate department, once Beaker is available.
   2. If a specimen was collected and labeled with a Beaker label, received prior to the downtime and tested, but not verified, the results should be available on the outstanding list. Compare results with the analyzer printout and verify.
   3. For any specimen collected and received during the downtime:
      1) CLP or designated personnel will place orders into Epic.
      2) Once orders are placed, use Specimen Linking (Epic → Specimen Linking), to link downtime specimens with the new order.
   4. Once all downtime specimens have been linked to a new order in Epic and verified, autoverification can be turned back on.
   5. **Note:** In the event of an unscheduled downtime, autoverification **NEEDS** to be suspended once Epic is available, and before specimen linking is performed.

INSTRUCTIONS TO ACCESS SRO (VIEW/READ ONLY ENVIRONMENT):

a. SRO will show you a read-only view of Epic.



   1. It will look like normal Epic with a Maroon heading, but it will not allow you to do any documentation. The SRO environment will only allow you to see what has been done.

   2. You will still use the paper documentation during the downtime.
      - SRO will be your tool to see what was already documented on the patient prior to the downtime.
      - If the SRO environment is available, it will be used instead of BCA PC.

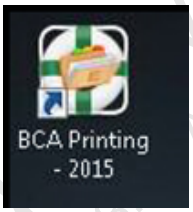
b. Access to SRO
   1. Prior to the scheduled Epic upgrade, you will need to logoff from Epic PRD.

   2. To log into the SRO environment:
      1) Open the Citrix Receiver (Start Button → Citrix Receiver).
      2) At the top of the Citrix Receiver window, click Apps.
      3) Scroll down until the Epic SRO icon is present, and click on it.
      4) Log in to the SRO environment using your network credentials.
         - For future use of the SRO environment, you can add it to your favorites in the Citrix Receiver by clicking on the details button next to the SRO icon, and then the Add to Favorites button.

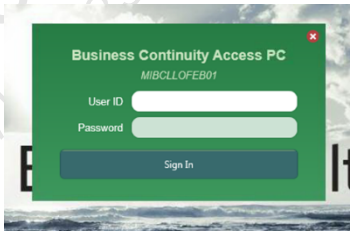
   3. Only use the SRO environment in the event of a downtime.
   4. Your workspace will have this header by the "Log Out" button:

INSTRUCTIONS TO PRINT REPORTS VIA BCA-PC:

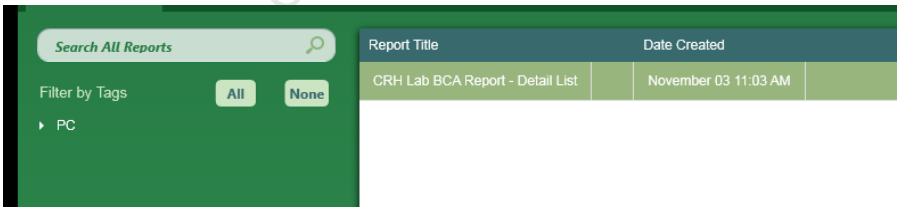
1. Log in to the BCA PC
2. Select BCA Printing icon



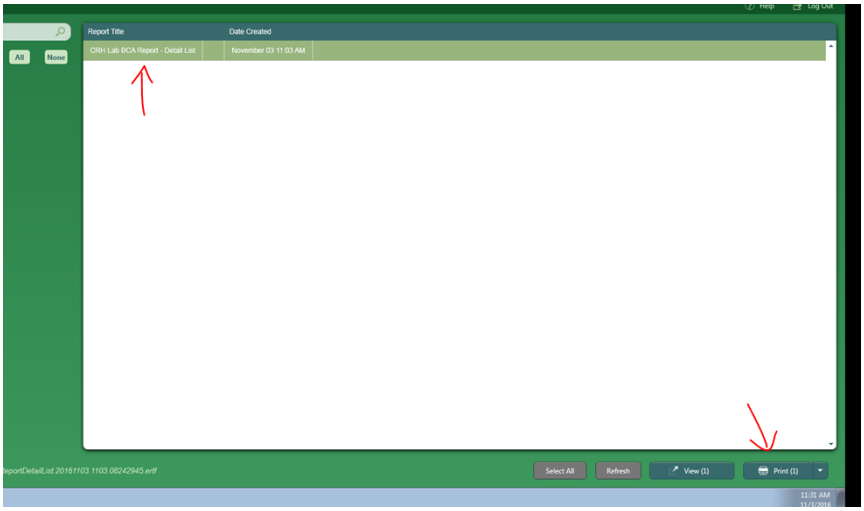
3. Login to BCA application



4. Choose Report



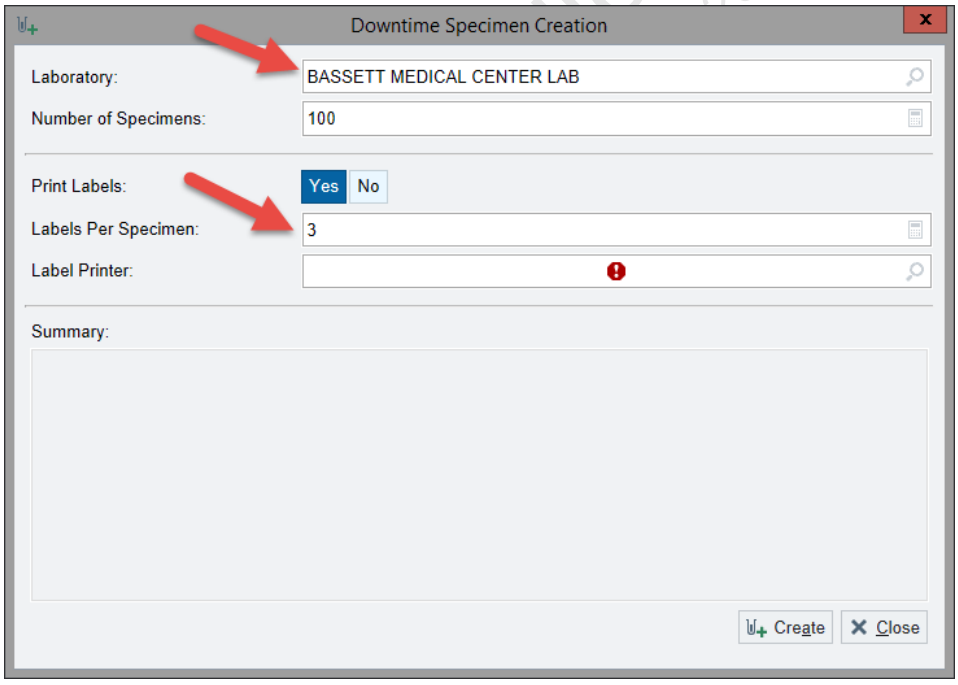
5. Double click to view report to verify information has been pulled.
6. Choose reports to print.



7. For specimens to be sent to a lab during downtime, use the Manual Accession Log in place of the Epic packing list.

PROCESSING & REPORTING DOWNTIME SPECIMENS AND QUALITY CONTROL Prior to Downtime:

a. Print downtime labels for appropriate laboratory (3 labels per specimen)
   - Epic → Downtime Specimen Creation



b. For Microbiology and Surgical Pathology specimens:
   - Refer to department specific procedures on how to label specimens during a downtime.

During the Downtime, (First stage < 2 hours):
Once a code green is announced, the downtime procedure should be followed. The only specimens that will be forwarded to the testing departments are as follows:

a. All testing ordered as STAT
b. All timed specimens
c. All body fluids
d. All specimens delivered on ice (lactic acid, ammonia, etc.)
e. Stool for WBC
f. Sedimentation Rate (ESR)
g. PTT, D-Dimer, or Fibrinogen (if not received frozen)
h. Other time or temperature sensitive analytes
    - Refer to the Lab Manual for time and temperature limitations.

All other specimens should be centrifuged and aliquoted if appropriate, and held until further direction from laboratory management.

1. Refer to the Lab Manual for specimen storage requirements.

If the downtime is unexpected, there may be specimens that are in the different stages of collection and receiving. Use the Network Downtime Flowchart to help determine the next steps of specimen accessioning and processing.

When it is determined that a test will be sent to the technical section for testing, the following actions will be taken:

1. Enter the patient information on the downtime log.
    a. Make certain to record the date and the page number on the log.

2. Choose the next set of downtime labels.
    a. There are three labels for each specimen ID.

3. Completely fill in all sections of all three large labels including the test(s) ordered.

4. Place one label in the log, the second label of that set on the specimen, and deliver the third label, including all of the small labels, with the specimen and log to the technical section.
    a. The third label will be used on the report form by the tech performing the test.
    b. The patient identification will be entered by the tech for any small label (footie label) that is used.

5. Each section will follow their specific procedure for testing samples during downtime. Refer to the section specific procedure for programming a specific analyzer.
    a. **Note:** Once a page is complete, make a copy on (colored paper or marked as a copy) and deliver to the testing section. The technical section will assure that all tests that are on the log have been performed, to make reconciliation easier once the system is available.
    b. **Note:** If a specimen is rejected for testing due to hemolysis or other reason, document on the log that it was rejected for hemolysis etc., follow your recollections procedures, and have the specimen recollected. When the new specimen is received in the lab, it should be given a new downtime number and logged on the form as a new test request.

6. When testing is completed in the section: the technologist will use the downtime report form and document the results in the appropriate place, noting the date, time and their initials on the report.

7. This downtime report will be delivered to the appropriate ordering location (fax, hand delivery or calling). After delivery of the report is complete, documentation is written on the report form of where, when and to whom the report was given to.
   - A copy of the report should always be kept in the laboratory, if the original copy is given to the ordering location.

8. Critical values will be communicated in accordance with the Critical Value Policy. Documentation of the critical value call will be made directly on the downtime report form with the written notes of the test called and read back, who was called (full name), date, time, and initials of the person completing the call.
   - **Note:** TigerConnect (Tiger Texting) may also be used to communicate critical values if the application is available. Appropriate documentation of the communication with the provider should be recorded on the downtime paperwork for future reference.

9. All downtime reports will be sent back to the performing section, to keep with all the logs and paper work for the downtime recovery phase.

For an extended downtime period, it may become necessary to process specimens with the normal downtime process. The descision to process all specimens will be made by network labortory management and communicated to all network labs. On the next page, a flowchart on how to process and send specimens to the referral labs should be used.

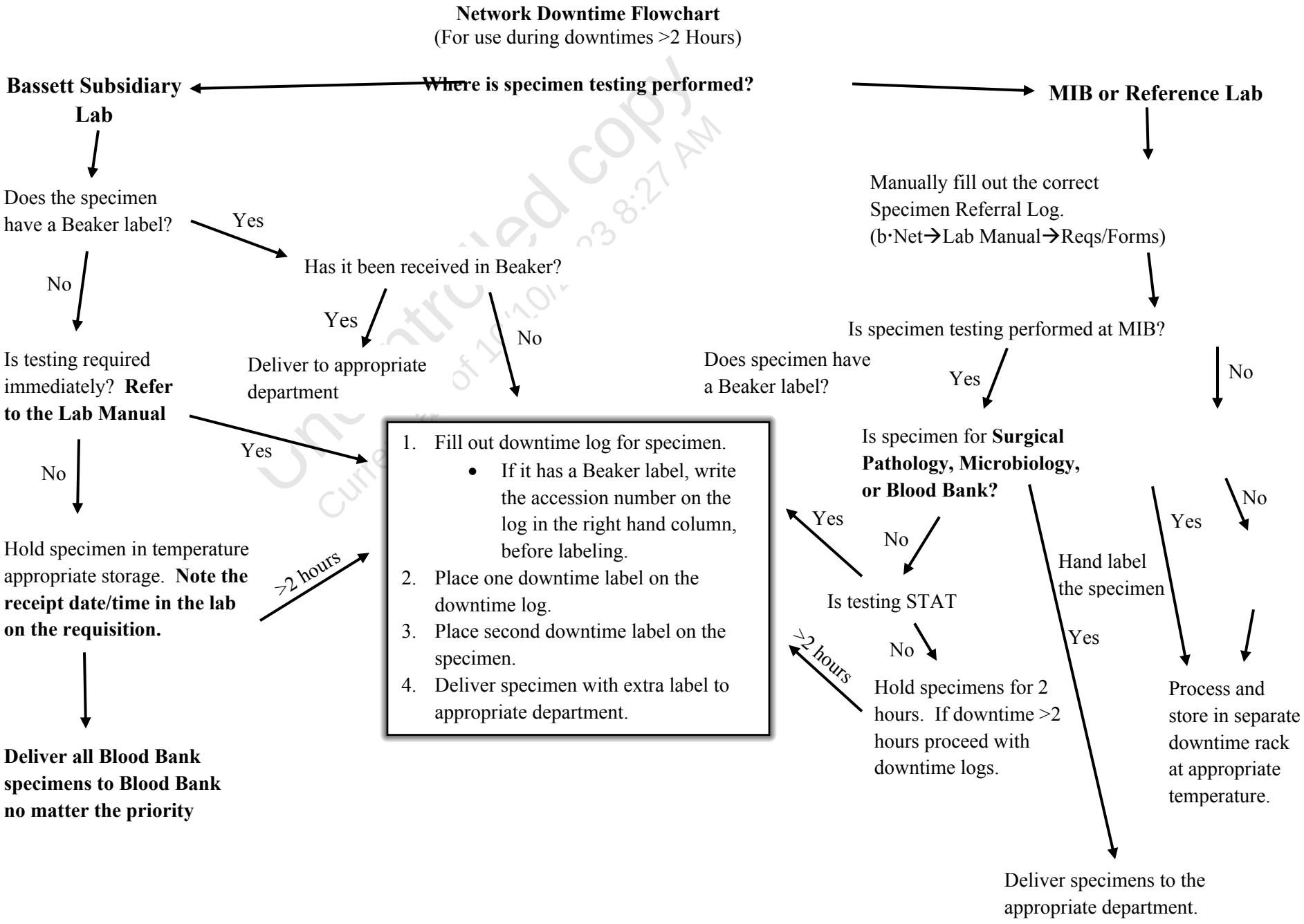
PROCESSING/VERIFYING QC:

1. If QC is scheduled, or needs to be performed during a scheduled downtime, perform QC as per the SOP.

2. When the instrument is done processing the QC specimens, check the QC results on the instrument.
   a. QC results should be reviewed on the analyzer, or compared with the QC reference page.

3. In the case of an extended downtime where QC needs to be performed multiple times without verifying it in Epic, perform QC as per the SOP.

Network Downtime Flowchart
(For use during downtimes >2 Hours)



POST DOWNTIME

1. When the Epic system is restored, IT will send the communication that the system is available.
2. The laboratory at this time can resume the normal testing process for specimens.
3. Each section should immediately check to see that all analyzers are functioning properly in Beaker.
   - **Note:** Some analyzers may need to be reset in Instrument Manager/Remisol.
4. **All downtime paperwork will be segregated from all other reports and kept at the section level for the Downtime Recovery Phase.**

Downtime Recovery Phase

Staff will be designated by laboratory managers/supervisors, technical specialists, or department leaders for downtime recovery.

During Downtime Recovery the following should be performed:

1. Using the first downtime log, specimens received will be test requested into Beaker using the Manage Orders function. **Note**: The correct visit encounter must be present before any test ordering can begin. Registration will create the encounters so you may have to wait until that is done.
   a. Priority is Downtime
   b. Update the collection date, time, and collector information.
   c. In the lab-only specimen comment box enter the dot phrase**, .DRT**, and then fill in the date & time the specimen was received in the lab during downtime. [*Downtime specimen rec'd on *** at ***.*]

2. Place the Beaker label on the downtime log in the column to the immediate right of the downtime label.
3. Continue to order all tests on the logs.
4. When all ordering has been completed, deliver the completed logs to the appropriate department.
5. Staff assigned to linking and reporting the specimens will ensure that the following are done:
   1) Check to make sure that all reports are with the completed logs.
   2) Suspend autoverification for the tests that you are linking if not already suspended.
   3) Link the specimens using the downtime logs, both labels, and a scanner.
   4) Using the downtime report go to the Outstanding List and verify the tests performed.
   5) Check in Chart Review to make sure all patient testing filed correctly into the patients chart.

Before final verification, check the results in Beaker as compared to the downtime report to ensure that all values are the same.

6. For each specimen number being verified, use the edit button, and go to the comment box on the bottom of the result entry screen (white box) and enter the dot phrase, **.DRE.**
7. Fill in the appropriate blanks for who the report was delivered to and date, time and initials of tech. [*Reported during Downtime to *** on *** at *** by ****].
8. If the test is not interfaced, use Result Entry to manually enter the result following the normal procedure and then verify, making sure to enter the dot phrase, **.DRE** in the comment box.
9. Documentation of all CV's will be done in the communication log as per normal procedure using the following dot phrase:
   .DCV. [*Critical Value called and read back during downtime to *** on *** at *** by ****].
10. Once all downtime specimens have been linked and verified, autoverification can be resumed, and testing continue in a normal manner.

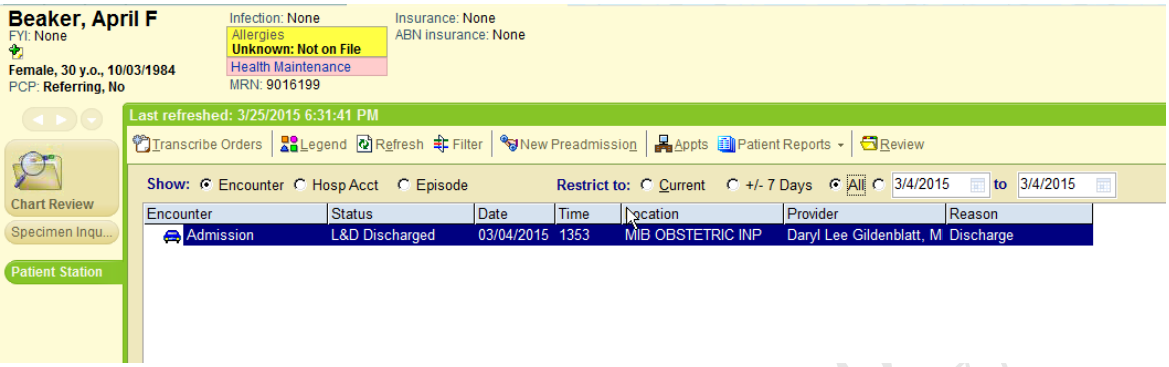
Technical specialists will review all the Outstanding Worklists and reports in their section to assure completion of all downtime testing.

All downtime documentation will be retained in the respective areas in accordance with regulatory requirements for document retention.

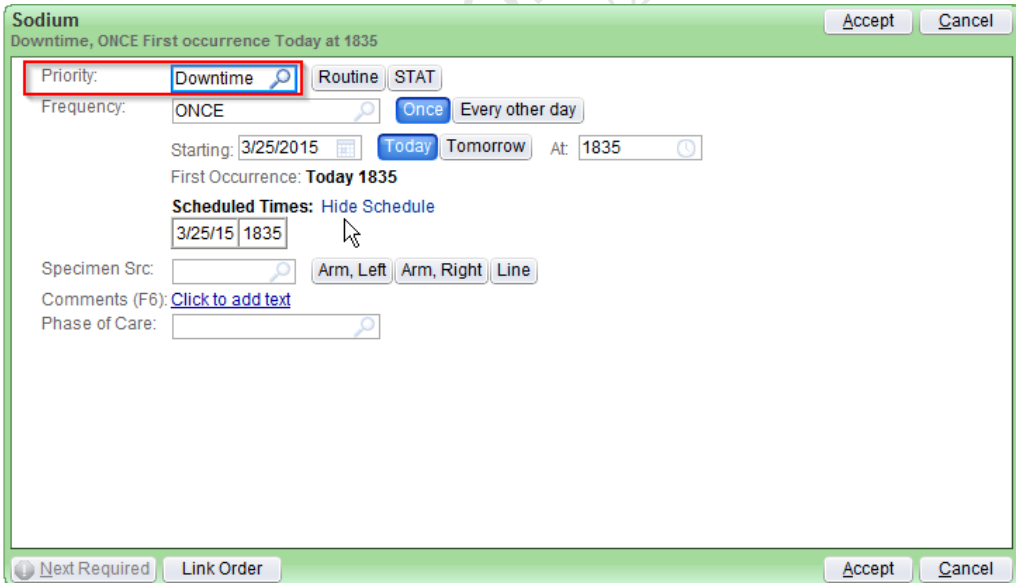
RECOVERY

*For specimens labeled with a Beaker label prior to downtime, skip to step 7.

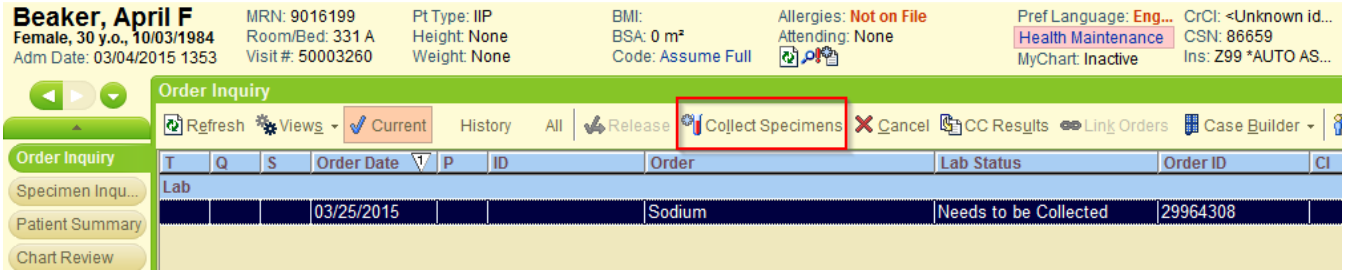
1. Click Patient Station
2. Enter patient name or MRN to find patient.
3. Double click encounter, to open patient's chart. (Registration will create the encounters)



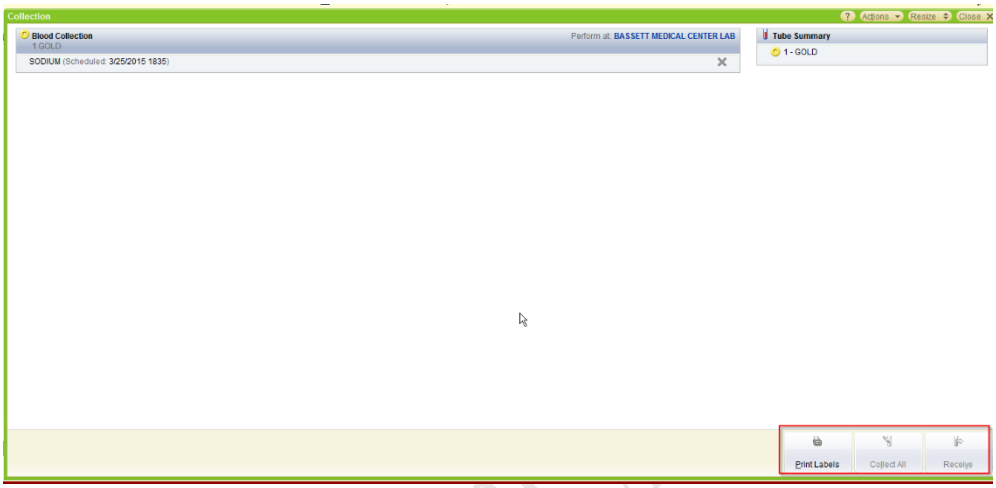
4. Place the order with a priority of **Downtime**. (For inpatients, use Manage Orders to place orders. For outpatients, use Add Order to place orders.) *If there are multiple orders to be placed, you can place them all at the same time.*



5. Sign the order. If necessary, enter the authorizing provider.
6. Go to Order Inquiry. Highlight order(s) to be collected and click collect. *You can collect multiple orders at once, and allow container sharing to evaluate.*



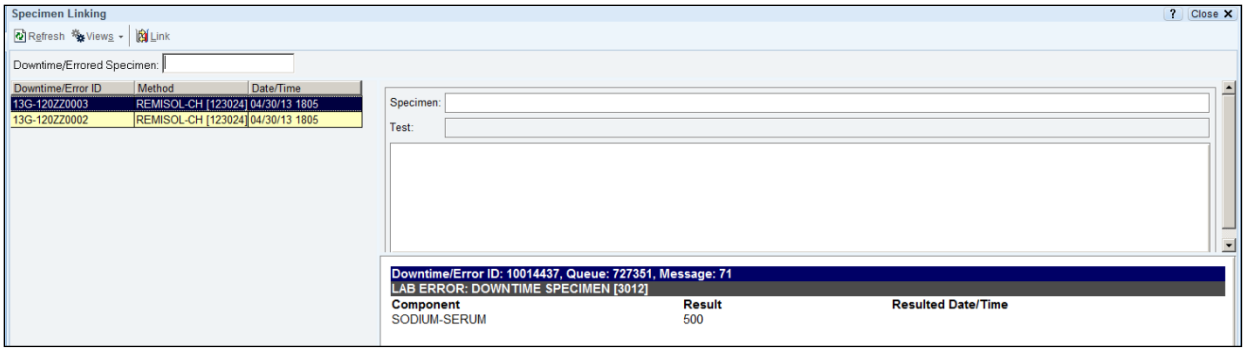
7. Print labels, update the collection information, and in the lab specimen comment box use dot phrase, .**DRT** to add the receipt date & time in the lab and then electronically receive the specimen.



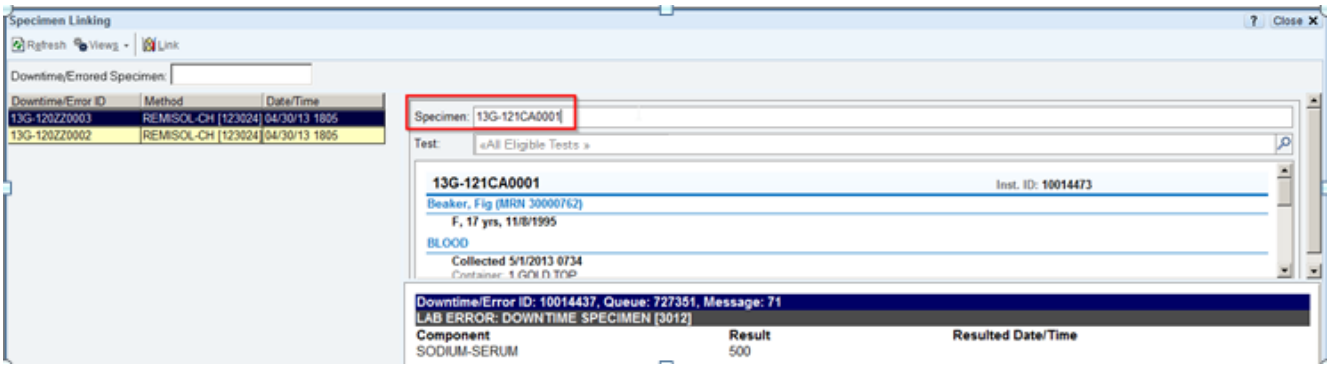
8. Suspend autoverification (if not already suspended) on the method before linking any specimen.

9. Open Specimen Linking (Epic → Specimen Linking)

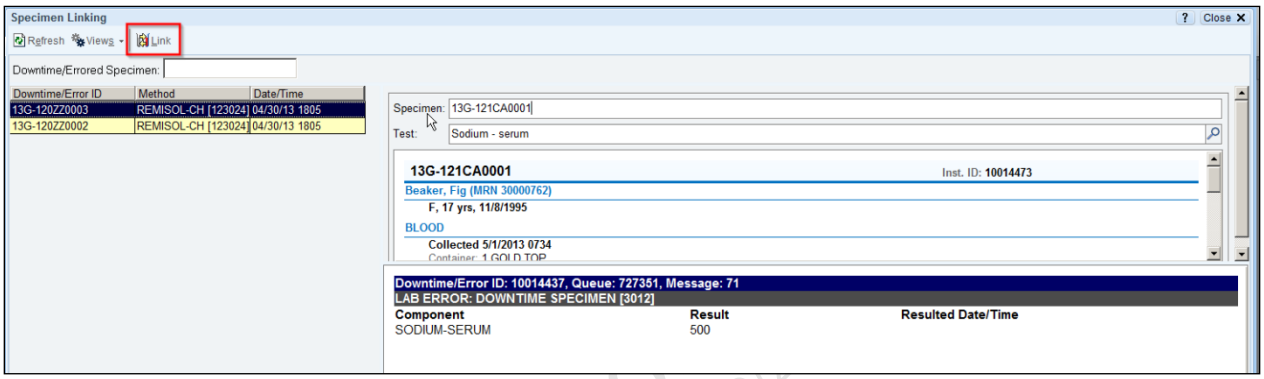
10. The default view of "Lab Downtime Linking" displays a list of all downtime specimens that need to be linked. Scan the downtime barcode to highlight the downtime specimen to be linked, on the left hand side of your screen.



11. Scan the new specimen barcode into the Specimen field.



12. Click Link in the activity toolbar.



13. After linking, go to the appropriate Outstanding List view and verify specimens. For each specimen number being verified, use the edit button, and go to the comment box on the bottom of the result entry screen (white box) and enter the dot phrase, **.DRE.**

14. Fill in the appropriate blanks, for who the report was delivered to, and date, time and initials of the tech. [*Reported during Downtime to *** on *** at *** by ****].

15. After verification, note on the log that the specimen has been completed.

16. Keep log with downtime reports until checked by departmental technical specialist or team leader.

17. After downtime is completed and all results have been verified, all orders/results will be checked to assure there are no missed orders or incomplete tests.

18. After linking is complete for the method, resume autoverification.