Status **Active** PolicyStat ID **13722077**

Beaumont

Origination	6/7/2023
Last Approved	6/7/2023
Effective	6/7/2023
Last Revised	6/7/2023
Next Review	6/6/2025

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Area	Laboratory-Chemistry
Applicability	Royal Oak

LIS Downtime Plan - Automated Chemistry STAT Lab - Royal Oak

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

The purpose of this document is to define laboratory protocol for times when the Network or Laboratory Information System (LIS) is unavailable to process orders for STAT Lab testing.

II. DEFINITIONS:

A. **LIS** - Laboratory Information System, currently Beaker.

B. **HIS** - Hospital Information System, currently One Chart/EPIC.

C. **Network, Core Lab Down** - there are communication problems in the Core Laboratory, which manifest as the inability to access e-mail or LIS. Stat Lab operations are unaffected.

D. **Network, Hospital Down** - there are communication problems in the hospital, which manifest as the inability to access e-mail or LIS in the STAT Lab. Nursing cannot order tests or access any results with the Hospital Information System (HIS). Core Lab operations are not affected.

E. **Network, Completely Down** - there are communication problems, which affect both the STAT Lab (main hospital) and Core Lab (Research Building) operations.

F. **One Chart/EPIC Beaker Down** - there is a problem with with the LIS, either scheduled or unscheduled, whereby we cannot access Beaker to input/retrieve laboratory orders and results.There may be new patient registration problems that impact Emergency Center (EC), preOP and Outpatient Labs. EC and Nursing Units cannot order labs or review results. Documentation and delivery of lab STAT results on Instrument Manager reports or downtime paper requisition is required.

G. **Instrument Manager (IM) Down** - there are communication problems with the instruments

transmitting results to Beaker and receiving orders at the instruments from Beaker .

H. **Rover Down** – Rover is the specimen collection system used by Nursing and Inpatient Phlebotomists. This module supports positive patient identification (PPID) bar code technology. When down, collection labels cannot be printed for specimens ordered through One Chart/EPIC Beaker. Specimens must be collected/received in Beaker by lab personnel.

I. **Beaker Downtime Label** - pre-printed generic specimen label with bar code downtime number (DT#) only. These labels are printed from Beaker before a downtime occurs. Each specimen type (e.g. SST, PST, EDTA, UA (urine) etc.) must receive its own downtime number to maintain ability for specimen tracking. The patient's name, MRN (medical record number), and test(s) requested are handwritten prior to labeling the specimen. The downtime number (DT#) is also assigned to the requisition.

J. **Downtime (DT) requisition** - pre-printed requisition form used to order tests and report results.

    1. The DT requisition must accompany the specimen and be minimally complete with demographics of:
        a. patient's name.
        b. MRN.
        c. location.
        d. test(s) requested.
        e. date/time of collection.
        f. collector ID.
        g. phone or pneumatic tube (p-tube) station number for returning results.
    2. When it is received in the lab, the requisition must be time-stamped or date/time of specimen receipt in the laboratory should be noted as "rcd_____".
    3. The DT requisition for EC and Inpatients is carbon 4-ply for results to be separated into copies for requester (white), shared samples (yellow/pink) and lab file (goldenrod).
    4. Outreach supplies downtime requisitions for their samples.

K. **Specimen Linking** - Process performed once Beaker is up to link results in Epic Beaker to patient orders placed after downtime. Once specimens are linked and the results are final verified all information will be complete and data will route to appropriate reporting method.

III. SPECIMEN COLLECTION AND HANDLING:

A. Specimens received in the STAT Lab must be labeled with either the LIS collection bar code label, or a patient chart sticker.

B. To maintain specimen integrity, samples for Blood gas testing and Ammonia must be received on ice.

C. Stat specimens should be reported within defined TAT (turnaround time) from specimen receipt.

D. Nursing units are expected to supply a downtime requisition complete with patient

demographics, test order(s), and p-tube station or phone number.

E. Stat Lab processor must prepare a downtime requisition, if not received from requesting unit.

F. **Add-On requests will NOT be honored during downtime.**

IV. DOWNTIME POSSIBILITIES:

A. **EPIC/Beaker Down, IM Up**

1. Existing orders in Epic are unavailable for collection.
2. For orders that arrive in the lab with Beaker barcoded labels, order requested labs in IM. Once Beaker comes back up, the results for these specimens can be retransmitted from IM to Epic/Beaker.
3. New orders submitted on paper requisition.
4. Lab Report/Recovery:
    a. Orders placed in IM will transmit to instrument and specimen results will be printed from IM.
    b. Orders that arrived on Beaker labels, once received, should transmit when EPIC connection restored.

B. **Beaker Up, IM Down**

1. No orders will go to the instruments from Beaker and results will not come from the instruments to Beaker.
2. Nursing/EC may continue to order in EPIC.
3. Follow the Downtime Emergency Plan to notify appropriate individuals that results may be delayed due to manual entry.
4. Lab will receive all orders with specimen barcodes.
5. Lab Report/Recovery
    a. All testing must be ordered at the instrument.
    b. Results must be manually entered into Beaker and clerical checked.
    c. No Nursing recovery required!

C. **Beaker Down, IM Down**

1. No orders can be placed in EPIC or IM.
2. Lab will receive all orders on paper requisitions.
3. All labs will be assigned downtime SIDs.
4. Lab Report/Recovery
    a. All tests must be ordered at the instrument.
    b. Results printed from the instruments and paper requisitions should be sent to the patient floors according to the p-tube station written on the requisition.
    c. Download results (existing orders) when EPIC and IM connections

restored.

V. SUPPLIES:

A. All supplies are located in the STAT Lab Processing Area, downtime cupboard.
    1. Downtime Procedure Manuals (red binders)
    2. Laboratory Beaker Downtime Procedure
    3. Beaker downtime labels
        a. 2 sets of labels with a Beaker specimen ID. One label is placed on the patient result/requisition and one on the sample.
    4. Downtime Requisitions (Chemistry, Hematology, Urinalysis, Toxicology)
    5. Time Stamper
    6. Staplers and staples
    7. Calculators
    8. Printer paper for instruments, IM
    9. File box with alphabetized folders for results to send
    10. File box with alphabetized folders for lab (goldenrod) file copies to be entered into LIS
    11. P-Tube and Phone Number List by Unit/Room # (posted at P-Tube station)
    12. Beaumont Laboratory Critical (Panic) Values
    13. Beaumont Laboratory Stat Testing List
    14. Automated Chemistry Reference Ranges and Critical List
    15. Recovery buckets

VI. QUALITY CONTROL (QC):

A. Run and print all QC generated from instruments.
    1. If IM is UP, and Unity is UP, QC will transmit automatically into Unity and may be reviewed in Unity.
    2. If IM is DOWN, but Unity is UP, manually enter QC results into Unity and review.
    3. If Unity is DOWN, review all QC vs posted/printed ranges for acceptability. Sign and date printout and leave for Medical Technologist (MT) Lead review.

B. Log ALL manual QC on respective Manual Worksheets. Initial worksheet entry.

C. SAVE all QC printouts in respective folders at instruments.

VII. PROCEDURE:

A. **Determine what is "down"**
    1. Call Help Desk to report problems with Beaker.

a. 888-481-2448

2. Call Abbott Hotline to report problems with IM.
    a. 1-877-422-2688

B. **Begin Downtime Protocol** when LIS, HIS, or IM has been down for 15 minutes.

C. **Designate a Lead** person to organize workstation assignments for available staff.

1. Assign one MT to each analytical station, if possible
2. Assign three staff to Processing station, if possible
3. Request additional staff (refer to Automated Chemistry Staff Phone Lists) as needed.
4. Refer to Downtime Procedure Manual for responsibilities by workstation

Processor	**MT/MLT** (Medical Laboratory Technician)
Empty pneumatic tubes	Architect 1
Answer phones	Architect 2
Process specimens	Manuals/Hematology/Coag
Deliver specimens	Radiometer ABL 825
Deliver and file results	Quality Check of Requisitions

D. **Processing**

1. Prepare specimens and paperwork for downtime reporting.
2. Use ball point pen when preparing DT requisition and press HARD so all information is legible on all (4) copies of the requisition!

If sample arrives in STAT Lab...	**Then...**
With Beaker DT label	• Prepare **DT requisitions** for results. • Include Patient Name, MRN, DOB, Location. Write "ORD #____" [i.e. Beaker assigned SID] through all copies. • Mark test(s) requested.
With patient chart label and DT requisition(s)	• Prepare one **DT label** for each specimen with Name, MRN, date/time and test(s). • Write DT # through all copies of requisition.
With normal Beaker label	• If able, receive sample in Beaker. • If unable to receive in Beaker, document receipt time on specimen.

3. Specimen Receipt: (Empty Pneumatic Tubes)

a. Remove specimens and requisitions from biohazard bags as specimens are received.
b. Check specimen(s) against requisition(s) to ensure specimen types are correct and orders are complete.
c. Time stamp receipt for all requisitions or note as “rcd_____”.
d. Date and Time of collection on all requisitions is critical. If this information is missing from the requisition, check for collection time on the specimen tube and copy to the requisition.
e. Keep specimens and requisitions together.
f. Send specimens and requisitions to Core Lab if testing is to be done there.
g. Call the ordering unit to resolve any problems (e.g. wrong orders, missing or wrong specimens) and set these biohazard bags aside.
h. Deliver specimens for Blood Gases directly to the Blood Gas section Technologist and put in first-in-first-out) (FIFO) order as received.
i. Immediately process orders that are received from Cancer Center, Trauma patients, or orders that arrive on ice.

4. Specimen Processing
    a. Work with one patient at a time, matching specimen(s) with requisition(s).
    b. Prepare appropriate DT requisition(s) if required for test(s) as shown in Table above.
    c. Note: Downtime requisition is required whenever:
        i. EPIC/Beaker down, IM Up (Can send paper copies of IM Report)
        ii. EPIC/Beaker down, IM down (can send paper Instrument Results)
    d. Use Beaker downtime bar code labels for specimens as required. These labels are pre-printed and stored in the Downtime cabinet. Write “DT # _____” through all copies of the requisition.
        i. 2/set - Chemistry, Hematology, Coagulation
    e. Use a new DT bar code label for each specimen type (PST, SST, Red-top, EDTA, Coagulation, Urine) for order entry and to maintain tracking ability.
    f. Write the patient name, MRN, test(s) and Date/Time collected for each individual specimen on the DT barcode label.
    g. See procedure Chemistry Panels: Availability and Tests.
    h. Prepare any additional Downtime Requisitions for multiple orders.
    i. Place DT label to the goldenrod copy of the requisition
    j. Send any specimen and requisition with shared Coagulation orders (Ex. PT/ PTT/D-dimer AND Fibrinogen) to the Core Lab for Coagulation

section. Place specimen and requisition in a red biohazard bag labeled with “Send Directly to Coagulation” sticker.

k. Orders for STAT testing in the Core Lab (e.g. Drugs of Abuse, Therapeutic Drugs) require a separate sample, separate requisition and separate DT#. The processor is responsible to complete a separate requisition if one is not received.

l. The Stat Lab processor is responsible to centrifuge SST specimens and keep DT requisitions at the centrifuge with the specimens prior to delivery to the testing sections.

5. Specimen Delivery
    a. Deliver samples and DT requisitions to appropriate workstations.
    b. If there are tests ordered for both the IL Top (Stat Coagulation) and XN3100 (Stat Hematology), shared requisition should be delivered with the specimens to first workstation.
    c. The Hematology specimen should receive its own DT# for Caresphere order entry and specimen tracking. The Coagulation specimen should receive a different DT# than the Hematology specimen.
6. Result Delivery
    a. When testing is complete, verify results are transcribed or stapled to the requisition.
    b. Place the completed requisition in the File Box labeled “To Send” under the file letter that corresponds with the patient’s last name.
    c. Quality MT/MLT will compile all Stat Lab testing together and send to ordering location via pneumatic tube system
    d. Outreach: Tube the top white copy to the Core Lab in an envelope labeled “To Outreach - Downtime results”. File the goldenrod copy of requisition in the file folder under “Outreach”
    e. All subsequent copies with handwritten results or attached printouts from the IM, and instrumentation, or Manual tests are filed in the File Box labeled “To Enter in LIS”. These are filed for phone queries and lab recovery.

E. **Abbott Architect**

1. Determine result printing needs based on:
    a. If IM is DOWN, set instrument printers to print patient results.
        i. Set Abbott Architect Printer “ON”
            a. System may be in 'Ready' or 'Running'
            b. Select 'System' from top menu bar and click 'Configuration'
            c. Under 'System Settings', click 'Reports - Printing'

d. Click 'Configure' (F6)
    i. Select Sample Laboratory Reports "on"
    ii. Choose "Done"

ii. Set Abbott Architect Printer “OFF” (when downtime has ended)
    a. System may be in 'Ready' or 'Running'
    b. Select 'System' from top menu bar and click 'Configuration'
    c. Under 'System Settings', click 'Reports - Printing'
    d. Click 'Configure' (F6)
        i. Select Sample Laboratory Reports "off"
        ii. Choose “Done”

iii. Manually program Beaker order # or DT#
    a. Click on 'Orders' and select 'Patient orders'
    b. Scan barcode into 'SID' field
    c. Select tests individually or use the “PANELS” menu and choose the correct panel.
    d. Patient information (Name, MRN, Gender, and date of birth) is entered under 'Sample details (F2)
    e. Click 'Add order'
    f. One instrument report will automatically print once results are complete.

b. If IM is UP, print results from IM
    i. Set IM Printing "ON"
        a. In IM, click on 'System'
        b. Select 'Status' from drop down menu
        c. Scroll down until you see 'IM Printer RO STAT' and right click to see additional options
        d. Click on 'Start Selected Connections', the status should change to 'On' in green lettering

    ii. Set IM Printing 'OFF' (when downtime has ended)
        a. In IM, click on 'System'
        b. Select 'Status' from drop down menu
        c. Scroll down until you see 'IM Printer RO STAT' and right click to see additional options
        d. Click on 'Stop Selected Connections', the status should change to 'Off request' in black lettering

iii. Once testing is complete, print results from IM

a. In IM, click 'Specimen Management'

b. Select 'Patient and Order Management'

c. Scan sample barcode into 'Specimen ID' field

d. Click 'Print Specimen'

e. Select 'IM Printer RO STAT' from pop-up list and click 'OK'

f. One report will print at the designated printer

2. Load samples so that the barcode is read by the instrument.
3. Staple a second printout complete with demographics to back of top white copy of requisition OR transcribe results (single or few results) onto the requisition, pressing firmly so results transfer through to all copies.
4. Results printed from IM will include calculated values (e.g. anion gap), however, results printed from the instrument will not. Refer to the procedure Formulas for Manual Calculations to determine these results. This procedure is also available in the red downtime binders.
5. Check printout for any "Critical High" flags. Confirm that the critical result is actually critical using the age related "Critical Value List" located in the red downtime binder.
6. Edit reference ranges on downtime requisition as required. (See Abbott Architect Immunoassay System Analyzer Operation and Abbott Architect Chemistry System Analyzer Operation for reference ranges.)
7. Call critical values during EPIC/Beaker downtime.
8. Document the following on DT requisition:
    a. "called critical _(test)_", along with the date and time
    b. employee ID# of the phone recipient or beeper # for physician recipient (To:____ By:_____)
    c. employee ID# of caller of the results
    d. Note "readback received"
9. Staple instrument printout of results to the goldenrod copy.
10. If other tests need to be done, pass requisition to next workstation.
11. When all tests ordered on requisition are complete, place white copy of requisition with results in File Box labeled "To Send." Place subsequent requisition forms with results in File Box labeled "To Enter in LIS."

F. **Manual Tests**

1. Use worksheet to log results.
2. Transcribe patient result directly onto the DT requisition:
    a. Urine hCG

b. Monospot
c. Osmolality
d. Occult Blood
e. Fetal Fibronectin

3. Edit reference ranges on downtime requisition as required. (See Downtime Manual for Automated Chemistry Reference and Critical Ranges).
4. Sign tech # or initials and date/time on bottom of the downtime requisition when testing is complete.
5. Pass requisition to next workstation if other tests are required.
6. Place completed results/requisition in the “To Send“ File Box.
7. Place Lab copies or results/requisition in the “To Enter in LIS” File Box.

G. **XN3100**

1. Determine which systems are down.
    a. If ONLY Caresphere is down:
        i. Coordinate with Hematology department to ensure Sysmex support is notified.
        ii. The analyzers will continue to process samples as normal. (E-IC has a local rules engine that will continue to run.)
        iii. Any samples which meet autoverification criteria will have results sent to the LIS automatically.
        iv. Samples which do not autoverify or require smear reviews will require manual entry into the LIS.
        v. When the connection to the Caresphere WS application is restored, results will automatically sync up from the E-IC to the Caresphere WS application.
    b. If EPIC/Beaker and/or IM is down continue through the procedure for instrument printing and resulting guidance.
2. Set the IPU (Information Processing Unit) to print all patient results.
    a. **XN PRINTER “ON” (To Print All Patient Results)**
        i. First log in as admin to allow the settings to be updated
            a. Click the Menu button
            b. Click "Log Off". Then click "Yes"
            c. Enter the login information
                i. Logon Name: admin
                ii. Password: m116m
                iii. Click "OK"

ii. Click the "IPU Setting" button.

iii. On the left side under the IPU Setting tree, click "Auto Output". Then check the box next to "GP".

iv. Click "Apply", then click "OK".

b. Notes:

i. HC (Host Computer) is Caresphere. Make sure this button has a checkmark in it so that results will transmit fro the analyzer to Caresphere.

ii. XN will automatically print one copy of results when testing is complete.

c. **XN PRINTER "OFF" (Print Positive Patients Results Only)**

i. Click the "IPU Setting" button.

ii. On the left side under the IPU Setting tree, click "Auto Output".

iii. Check the box next to "GP". This will remove all four checkmarks for this row.

iv. Click "Apply". Then click "OK".

v. To log out of admin mode:

a. Click the Menu button

b. Click the "Log Off" button. Then click "Yes".

c. Enter the login information:

i. Logon Name: XN

ii. Password: (leave blank)

iii. Click "OK"

3. Enter demographic data in Caresphere prior to running specimens, then place labeled tubes in a Sysmex rack to run on the XN line. Trim patient label as necessary so that the specimen will fit properly in the rack.

a. If the LIS is down, the Caresphere Enter Order function can be used to enter orders using downtime barcode labels for samples that are not ordered. Entered demographics will print on analyzer printouts. Delta rules and Pathology reviews will apply based on MRN entered.

i. Select ENTER ORDER from the Caresphere WS Main Menu.

ii. Scan the downtime barcode label for the Sample ID. If the Sample ID exists, a message will display stating, "The sample ID already exists". If this occurs, discard downtime label and use another label number.

iii. Type in the MRN (without visit number) and press TAB. If the patient was previously seen by Caresphere, patient demographics will automatically populate. If not, enter patient

name and DOB.
NOTE: At least 3 demographic criteria must match exactly in Caresphere WS or a sample will not be considered as the same patient.

iv. Select the SEX from the drop down box, if it does not auto-populate after entering the patient's MRN. Press TAB.

v. Enter the COLLECTION DATE and TIME (Collection d/t) from the downtime form

vi. Scroll down to "Select Profiles and Tests". Based on the requested order, click the box next to the corresponding profile codes or select test codes.

Requested Order	Profile Code(s)	Test Codes
CBC	CBC + NRBC	NA
CBCWD	CBC + ADIFF + NRBC	NA
Retic	Retic	NA
Hemoglobin & Hematocrit	NA	HGB, HCT, MCHC, PLT
Hemoglobin	NA	HGB, MCHC, PLT
Hematocrit	NA	HCT, MCHC, PLT
Platelet	NA	PLT

Example 1: To order a CBCWD check the box next to the profile orders CBC, ADIFF, and NRBC. Scroll to the bottom of the profile for NRBC. Checking NRBC is required.
Example 2: To order a Hemoglobin & Hematocrit test click the arrow button next to "Show Test Order" to open an additional menu. Check the boxes next to HGB, HCT, MCHC, and PLT.

vii. Verify that the DT label number, patient information, and specimen information is correct.

viii. Scroll down and click the "Save" button on the bottom right of the screen.

b. XN will automatically print one copy of results when testing complete.

c. Print a second copy of results for a lab copy using the XN IPU:

i. Select "Explorer"

ii. Highlight patient results by finding the DT number

iii. Select "Output"

iv. Select "Report GP"

d. Caresphere Resulting

i. After specimens have been run, result patients according to procedure. Make sure that barcode errors and analysis errors are accounted for.

ii. Specimen numbers will appear as unregistered in Caresphere, designated with blue highlighting on the Sample List.

iii. Unregistered critical values may trigger in Caresphere. Check the demographics of the patient to determine whether the value is critical, given the demographics.
Example: HGB <10.0 will flag the Unregistered Critical HGB rule. This is a true critical for patients aged 0-14 days, but not a true critical for adult patients.

iv. If user determines all necessary actions are completed on an unregistered sample, the sample can be validated.
NOTE: When sending paper copies to the EC/Nursing units - black out any result that will need further verification, then staple to white copy.

4. Edit reference ranges on downtime requisition as required. (See Downtime Manual for Automated Chemistry Reference and Critical Ranges).
5. Call critical values during Beaker downtime. Document the following on Downtime requisition:
    a. “called critical _(test)_”, along with the date and time
    b. employee ID# of the phone recipient or beeper # for physician recipient (To:____ By:_____)
    c. employee ID# of caller of the results
    d. Note “readback received”
6. Staple one copy of results to the top white copy of requisition (face up) and staple the other copy of the results to the back of the goldenrod copy (face up).
7. Sign tech # or initials and date/time on bottom of the downtime requisition when your testing is complete.
8. If other tests need to be done, pass requisition to next workstation.
9. When all tests ordered on requisition are complete, place requisition in the “Completed Results” bucket for separation and delivery of top copy.
10. **If a CBC has to be sent to Hematology for a differential or verification- Print a 3rd copy of results.**
    a. Copy 1- Results to EC/Unit – Black out any result that will be verified by Hematology, and stamp “Results to Follow” on report, staple to white copy.
    b. Copy 2- Lab copy to (A-Z) file. Black out any result that will be verified by

Hematology and staple results to goldenrod.

c. Copy 3- Hematology copy. Staple results to yellow/pink. Send paperwork and specimen via p-tube to Hematology.

d. Sign and date downtime requisition when testing is complete.

11. Processors will retrieve completed requisitions, send and file copies.
12. **Shared specimens** with Hematology, (e.g. ESR): Document "_____ to follow" on white and goldenrod copies only.
13. Pink and Yellow copies follow primary tube to the Core Lab. Whenever possible, a separate requisition will be prepared by processing when sending shared specimens to the Core lab.
14. NOTE: You may also wish to reference Hematology Computer Downtime Workflow - RO for additional specialized departmental instructions.

H. **ACL TOP 550**

1. Loading samples:
    a. Load the sample rack and order the test manually (no automatic inquiry of tests due to lack of connection)
        i. Double click on a sample to open the order screen
        ii. Double click on the white box to the right of the sample (or single click and select the '...' button)
        iii. From the pop-up menu "Tests and Profiles" select the requested tests.
2. To manually print a result off the ACL TOP 550:
    a. From the menu bar click "Analysis"
    b. Select "Sample List"
    c. Place a checkmark next to the appropriate sample ID
    d. Click the 'Print' icon on the upper menu bar
3. Transcribe results on the DT requisition form for each patient so that the results will show on all copies.
4. Update the normal ranges on the requisition. Refer to the preprinted normal values.
5. Staple printout to back of the goldenrod copy.
6. Edit reference ranges on downtime requisition as required (See Downtime Manual for Automated Chemistry Reference and Critical Ranges).
7. Call critical values during EPIC/Beaker downtime.
8. Document the following on DT requisition:
    a. "called critical _(test)_", along with the date and time
    b. employee ID# of the phone recipient or beeper # for physician recipient (To:____ By:_____)

c. employee ID# of caller of the results

d. Note “readback received”

9. Sign tech # or initials and date/time on bottom of the downtime requisition when testing is complete.
10. When all tests ordered on requisition are complete, place white copy of requisition with results in File Box labeled “To Send.” Place subsequent requisition forms with results in File Box labeled “To Enter in LIS.”
11. For Coagulation Verification, Send the white, yellow and pink copies of requisition and TOP 550 printout together with specimen to coagulation.
12. Note ”Coagulation verification results to follow” on goldenrod copy and file in the Stat Lab (A-Z) file box.

I. **Blood Gases: Radiometer ABL 825**

1. Scan Beaker label or DT label
2. Select appropriate test from menu
3. Print 2 copies of results, place second DT label on lab copy
4. Write patient name and MRN on each copy
5. Staple 1st copy to the white requisition
6. Staple 2nd copy to back goldenrod copy of the downtime requisition (lab copy).
7. Note “Arterial or Venous” on respective Cord gas printouts.
8. Edit reference ranges on downtime requisition as required. (See Downtime Manual for Automated Chemistry Reference and Critical Ranges).
9. ***Call all blood gas results during EPIC/Beaker downtime.*** Note any criticals called.
10. Document the following on DT requisition:
    a. “called _(test)_”, along with the date and time
    b. employee ID# of the phone recipient or beeper # for physician recipient (To:____ By:_____)
    c. employee ID# of caller of the results
    d. Note “readback received”
11. Sign tech # or initials and date/time on bottom of the downtime requisition when testing is complete.
12. When all tests ordered on requisition are complete, place white copy of requisition with results in File Box labeled “To Send.” Place subsequent requisition forms with results in File Box labeled “To Enter in LIS.”

J. **TEG 6S**

1. Determine what system is down:
    a. EPIC/Beaker is down

i. Follow TEG 6s Hemostasis System - Royal Oak STAT Lab procedure with the following exceptions:
    a. LIS query not possible, enter patient information as prompted (MRN, name, specimen ID)
    b. Log into TEG Manager, on the 'Search' page check 'Today' and click 'Search'
    c. Select the appropriate patient and verify that patient identifiers are present - if not, update the information for that run.
    d. Results will be available for viewing in TEG Manager.

b. Network is down - Hospital and/or Complete Network DT
    i. Follow TEG procedure linked above with the following exceptions:
        a. LIS query not possible, enter patient information as prompted (MRN, name, specimen ID)
        b. Access to TEG Manager likely not possible, notify ordering physician that results will only be viewable on the instrument screen in STAT Lab.

c. TEG Manager is down
    i. Follow TEG procedure linked above with the following exceptions:
        a. Access to TEG Manager not possible, notify ordering physician that results will only be viewable on the instrument screen in STAT Lab.

Quality Check and Completed Results

A. As results are placed in the “To Send” File Box, compile results and do a quality check for clarity and completeness before sending.

B. If patient location or P-Tube station is noted, send ENTIRE packet of patient’s results and physician requisitions through the pneumatic tube system.

C. For EC specimens: coordinate with EC Charge nurse to determine centralized P-Tube station for results (usually station near residents room)

D. If patient location unknown, place entire packet in ‘unknown location’ file.

MN Responsibility

A. Start a new folder set (A-Z) for next date, if downtime goes past midnight.

B. Rubber-band previous date folder set (A-Z) and place at back of box.

C. Start new storage box if necessary.

Recovery

A. Turn instrument printers “OFF”. (See individual instrument procedures)

B. Order/Collect/Receive by DATE, moving through the alphabet folders in order.

    1. See Laboratory Beaker Downtime Procedure for detailed instruction on how to recover including Specimen Linking.

C. When possible, pull order numbers from Beaker and match with DT orders

D. Resubmit or manually enter results into Beaker

E. Use the Recovery Buckets during each stage of recovery process - located in the downtime cupboard for

    1. Problems
    2. To be Resulted
    3. Outreach to Result
    4. Completed.

F. Document critical calls with actual date/time, caller ID# and recipient ID # information from goldenrod lab copy.

G. Goldenrod copies are retained for a minimum of 2 years.

NOTE: Add-on test requests will not be honored during LIS Downtime.

Approval Signatures

Step Description	Approver	Date
Medical Director	Ann Marie Blenc: System Med Dir, Hematopath	6/7/2023
Lab Chemistry Best Practice Committee	Nga Yeung Tang: Tech Dir, Clin Chemistry, Path	5/26/2023
Lab Chemistry Best Practice Committee	Caitlin Schein: Staff Physician	5/26/2023
Policy and Forms Steering Committee Approval (if needed)	Colette Kessler: Mgr, Division Laboratory	5/25/2023
	Colette Kessler: Mgr, Division Laboratory	5/25/2023