Policy Statement	The Core Laboratory is committed to providing continuous quality laboratory services in the event the computer system is unavailable or inoperable. The Core Laboratory must initiate and maintain channels of communication to support patient services during periods of time without the Meditech Laboratory Information System (LIS).
Purpose	The purpose of this procedure is to provide instructions for the continued operations of the Core Laboratory during Meditech downtime.
Scope	This procedure applies to the associates working in the Core Laboratory on all shifts.
Responsibility	The Charge Technologist in the Core Laboratory is directly responsible for overseeing the downtime response and following the procedure. Individual responsibilities during a downtime are assigned to technologists and lab assistants by the Charge Technologist or their designee. All individual technologists are responsible for initiating and maintaining this procedure as it pertains to their individual work assignments through any computer downtime period.

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Prior to Planned Downtime

For a planned downtime of any length, the following associates should perform the tasks listed below prior to the LIS shutdown:

Charge Tech:

1. Ensure that staffing levels will remain adequate for duration of the downtime. To meet the required increase in staffing during a downtime, the Charge Tech will ask associates to volunteer for the scheduled period of the computer downtime, if applicable. On Call will be activated if needed. The Charge Tech will coordinate with the Lab Support Services Supervisor to attain minimum staffing in Specimen Processing for a computer downtime.
2. Oversee the preparation for downtime at each workstation.
3. Assign duties to technologists as deemed appropriate.
4. Provide copies of alert values and QC ranges to workstations as needed.

Technologists:

1. Print pending logs
2. Close analyzer batches and shut down Meditech interfaces approximately five minutes prior to downtime. Do not close the batch for the Biosite Triage devices.
3. Obtain the bin for each assigned workstation. The bin should contain the downtime job aid for the associated bench, manual report form, alert value downtime job aid, and any other documents specific to the bench. If any items are missing, the technologist should notify the Charge Tech.
4. Set analyzers to manual mode, if applicable. This will allow the instruments to run specimens without an interface. See specific bench job aid for details.

Unplanned Downtime

If the computer system stops working (unplanned downtime), the Charge Tech will immediately call the IS help desk at extension 2070; report the problem and ask for the estimated downtime duration. Always anticipate that downtime may exceed the estimated time. The on-call technologist is required to remain when downtime crosses change of shift. The Charge Tech will coordinate staffing needs with the Support Services Supervisor and page/call the LIS Coordinator and the Laboratory Administrative Director. All associates are expected to follow the duties listed under the Planned Downtime section thereafter.

During the Downtime

Charge Tech:

1. Continue to oversee downtime operations at each workstation and assist or advise, as needed.
2. Act as a point of contact for all communication with those outside the Laboratory (physicians, nursing supervisors, patient care areas, IS, etc.).

Technologists:

1. Receive specimens from Lab Assistants. Specimens will have the tests required indicated on the label. (In the event that the downtime database is not working, the Lab Assistant will deliver the specimen and requisition to the testing area.) See the analyzer specific job aid for details on how to order testing.
2. Run specimens on the instrument or manually as indicated.
3. Keep specimens separated by samples with Meditech labels and samples with downtime labels.
4. In the event that a sample is not appropriate for testing (e.g. hemolyzed, diluted, clotted, etc.) the sample should be taken back to the lab assistant station indicated at the bottom of the label.
5. When testing is completed, the technologist prints out or makes three copies of the results (analyzer print out or manual report). The technologist keeps one copy at the workbench in the "Completed." Two copies of the results are taken to Specimen Processing. **Do not staple them together.** The technologist will place one copy in the bin labeled "Send" and one copy is placed in the bin labeled "File."
6. Respond to alert values. The technologist must call the alert values and document the name of the person called along with the time on all copies of the printed result form. Place alert result printout in a separate pile. The alert value job aid will have the full list of alerts.
7. Run all QC as required by CORE 6035 R at the predetermined times**.** The QC ranges will be provided by the Charge Tech. Technologists must print out all QC results and as necessary write remedial comments on the analyzer printout if QC is out of range, include any actions taken.
8. Technologists working in the referral testing area are responsible for processing samples as normal. Extra labels should be utilized to ensure all aliquots have all required information. In the event that the downtime lasts longer than 24 hours, electronic orders will need to be created online for samples with short stability times. Contact the Lead Technologist prior to starting this process.

Recovery Phase

Charge Tech:

1. Has primary responsibility for organizing the recovery phase when the LIS system is back online. Responsibility includes coordinating the efforts with the technologists and lab assistants.
2. Any discrepancies that cannot be resolved by the technologists will be brought to the attention of the Charge Tech. The Charge Tech must write an ORF for discrepancies and for all issues or problems resulting from the downtime.
3. The Charge Tech is responsible for activating the On-Call policy if additional help is needed.
4. Alerts will need to be acknowledged once a technologist enters the results. The

Charge Tech will review comments prior to acknowledging alerts in the Notification System.

Technologists:

1. Responsible for downtime recovery at each workstation. The technologist will verify all samples that are pending on the printed pending log.
2. Give the laboratory assistant the rack of samples that arrived in the lab with a Meditech barcode label for appropriate receipt.
3. Review the specific analyzer job aid to determine the steps needed to restart the interface appropriately.
4. If a specimen had a Meditech barcode label, the technologist will only verify the results after receipt by the lab assistant.
5. Begin reviewing copies of the downtime log sheets from the lab assistants. Logs will be generated by the Lab Assistant and delivered to each bench.
6. Compare the downtime barcode number on the log with that on the batch containing the downtime specimen results. The Technologist will then “match” the downtime barcode number with the Meditech accession number that is indicated on the log.
7. Must enter the documented contact information for alert values in Meditech.
8. Review the results and verify in Meditech.
9. Tests that are done on instrumentation that is not interfaced will need to be resulted manually from the Manual Result Form.
10. Label all samples with the Meditech labels.
11. Review the associated Pending Log for the bench. If tests from downtime period are still pending, they should check the file boxes. The technologist must investigate any and all discrepancies. If they are unable to resolve the discrepancy, the technologist must bring the issue to the Charge Tech.
12. Re-transmit and verify all QC specimens run during the downtime and indicate the response to any warnings or rejections as per QC procedure.
13. Technologists working in the referral testing area are responsible for entering the orders into Meditech and labeling the samples appropriately.

The Quality Coordinator will schedule a meeting within one week of the downtime to review problem areas. If necessary, this procedure will be revised to include changes developed in the follow-up meeting.

Record Retention

- Downtime requisitions and logs will then be filed with the hard copies of the test results and archived for two years. Only original paperwork needs to be retained.
- The Lead/Charge Tech (or designee) is responsible for collecting all results, logs, and requisitions, boxing all supporting documents, labeling the box with downtime date/date of destruction and taking the box to the storeroom.

Related Documents

CORE 7050 F Meditech Downtime Manual Report Form
CORE 7050 Fa Meditech Downtime Urinalysis Report Form
CORE 7050 Ja Roche Cobas 6000 Downtime Job Aid
CORE 7050 Jb Roche Integra Downtime Job Aid
CORE 7050 Jc Centaur XP Downtime Job Aid
CORE 7050 Jd Sysmex Downtime Job Aid
CORE 7050 Je BCS Downtime Job Aid
CORE 7050 Jf Rapid Response Bench Downtime Job Aid
CORE 7050 Jg Alert Value Downtime Job Aid
CORE 6035 R Daily Quality Control Procedure
CORE 6055 R Splitting and Aliquoting Specimens
CORE 6060 Q Unacceptable Specimen Rejection and Delta Review Standards
SPRO 7006 R Computer Downtime Procedure

SAINT AGNES HOSPITAL

Saint Agnes Laboratory - Manual Result Form

Patient Last Name: Location: Downtime #:

Patient First Name: Technologist: Meditech BC#:

Drugs of Abuse Screen	Patient Result	Reference Range	Coagulation	Patient Result	Reference Range	Rapid Testing	Patient Result
Phencyclidine (PCP)		Negative	PT		9.7-12.2	Serum Pregnancy	
Benzodiazepines		Negative	INR		0.88-1.13	Urine Pregnancy	
Cocaine		Negative	aPTT		19-31	Strep A	
Methadone		Negative	Fibrinogen		150 - 450	Mono	
Amphetamines		Negative	Anti-Xa LMW		0.6 - 1.0	RSV	
Cannabinoids		Negative	Anti-Xa Fonda		0.61 - 1.30	Influenza A	
Opiates		Negative	H.I.T.		Negative	Influenza B	
Barbiturates		Negative	D-Dimer		<0.50	Occult Blood	
Oxycodone		Negative	Thrombin Time		15-22 secs	Gastric Occult	
						Stool WBC	
			Hematology				
			ESR		Male: 0-20	**Special Immunology**	
Osmolality:					Female: 0-10	Rapid HIV	
Serum		275 - 295	Kleihauer Betke		0.0000	Hepatitis A IgM	
Urine		> 300	Sickle Cell		Negative	Hepatitis A Total	
						Hepatitis B Core IgM	
Fetal Fibronectin		Negative	**Point of Care Testing**			Hepatitis B Core Total	
			BNP		0 - 100	Hepatitis B Surface Antibody	
Procalcitonin:			TROP-I		< 0.05	Hepatitis B Surface Antigen	
2 days and older		< 0.5				Hepatitis C Virus	
less than 2 days old		Varies by hour					
Lyme IgG & IgM		Negative	**Vaginal Pathogens Panel**			**Special Molecular**	
Mumps IgG		Negative	Candida			Clostridium difficile (Cdiff)	
Varicella IgG		Negative	Gardnerella			Group B Strep	
			Trichomonas			Enterovirus	

Roche Cobas 6000 Downtime Job Aid

Downtime Phase

Forward all phones to 6800 to minimize interruptions for the technical staff during downtime.

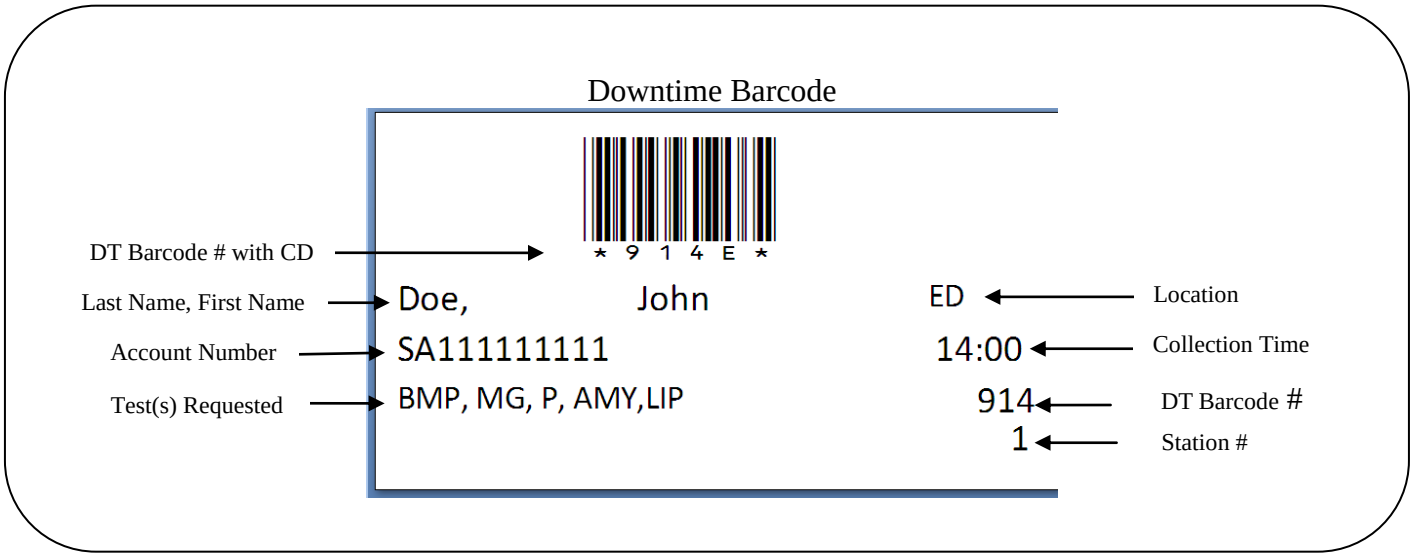
- Five minutes before Meditech is scheduled to go down stop the MD1 batch
- Make sure there is paper in the COBAS printer
- Take the analyzer to Standby.
- Turn communications off by pressing **START** then **CHANGE** next to host communication on box and press **OK**
- While in Stand-by go to **UTILITY** then **System** and press the Page button (bottom of page second from right) until page 4/4 is on the screen. Press **Auto print** (bottom left button) and make sure the box next to **Emergency Sample** is checked.
- To program a specimen go to **WORKPLACE** then **Test Selection**. Make sure that the type of rack that is being used is selected **(STAT)** as well as the proper specimen type. Type in the downtime barcode number without the letters and select the tests that are requested. Then press the **Demographics** button and type in the patient's name and location under patient information comments. Press **OK**. Finally press **SAVE** button. Load the specimen so that the analyzer can read the barcode.
- Load the specimen rack onto the analyzer normally.
- The patient results should print automatically. If a result is re-run it will not print automatically.
- Make 2 copies of the instrument printout (3 total.)
- Check bright green packets for Reference Ranges, Alert Values and QC ranges.
- Call alert values as required and document on printout including first and last name of person taking the results and the time of the call.
- Use a Manual Laboratory Report Form for all manually performed tests and make 2 copies of each (3 total.)
- Keep one copy at the workstation in the "Completed" bin.
- Place one copy in the "Send" bin in Processing.
- Place one copy in the "File" bin in Processing.

Recovery Phase

- Host communications will need to be turned on and **Emergency Sample** will need to be unchecked in the Cobas.
- Log into Meditech and open and start new MD1 batch.
- Run a QC sample and verify results.
- Transmit results from Cobas to the new batch.
- Lab assistants will bring logs and Meditech barcode labels to each workstation.
- Techs will match downtime barcode to Meditech barcode.
- Turn on auto-release.
- Verify any results that do not auto release.
- Enter and verify results from the Manual Laboratory Report Forms.
- **Enter alert value documentation where indicated**. **Provide Alert Value documentation to the Charge Tech**.

Roche Cobas 6000 Downtime Job Aid

- Label each sample with the provided Meditech barcode label prior to archiving.



Roche Integra Downtime Job Aid

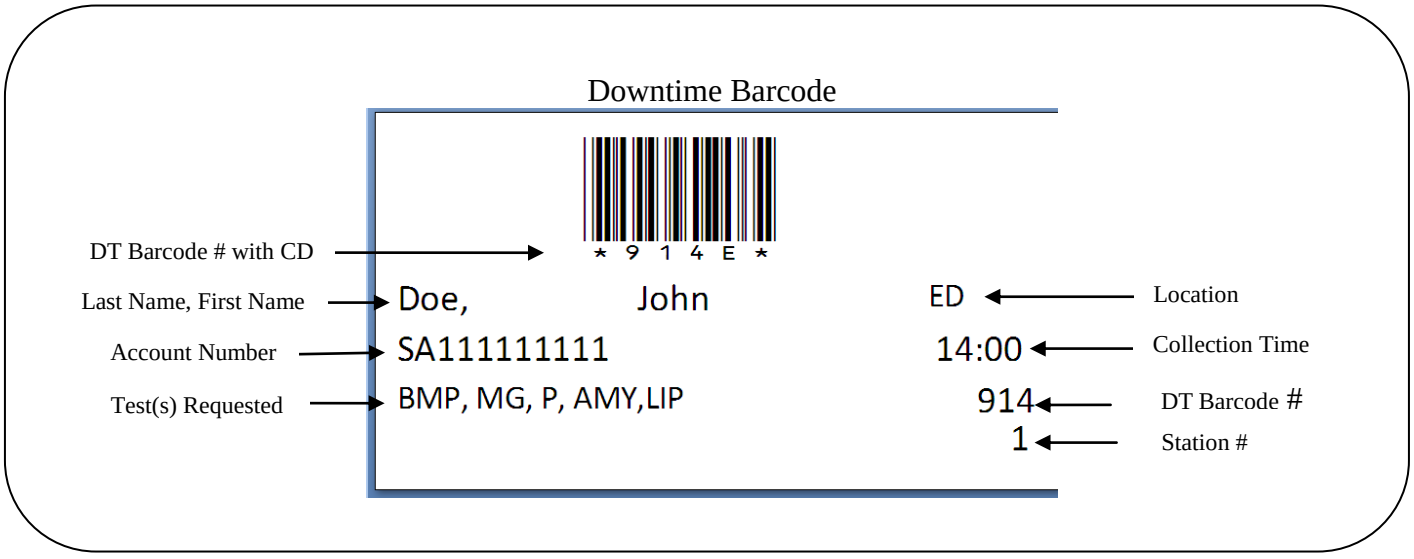
Downtime Phase

Forward all phones to 6800 to minimize interruptions for the technical staff during downtime.

- Five minutes before Meditech is scheduled to go down stop the IT1 batch
- Make sure there is paper in the printer
- To create orders:
    - On the order screen click create
    - In patient ID field, enter patient's name
    - In order ID field, enter downtime barcode number (numbers only, no letters)
    - Click (…) to select tests
    - Click ACTIVE
- Place tube in the blue rack with the barcode facing out and load on analyzer
- Status on screen will show bc not yet read until the rack has been read.
- When complete
    - Select PRINTER icon on analyzer screen
    - Select or highlight the results to print
    - Print final
- Make 2 copies of the instrument printout (3 total.)
- Check bright green packets for Reference Ranges, Alert Values and QC ranges.
- Call alert values as required and document on printout including first and last name of person taking the results and the time of the call.
- Use a Manual Laboratory Report Form for all manually performed tests and make 2 copies of each (3 total.)
- Keep one copy at the workstation in the "Completed" bin.
- Place one copy in the "Send" bin in Processing.
- Place one copy in the "File" bin in Processing.

Recovery Phase

- Log into Meditech and open and start new IT1 batch.
- Run a QC sample and verify results.
- Transmit results from Integra to the new batch.
- Lab assistants will bring logs and Meditech barcode labels to each workstation.
- Techs will match downtime barcode to Meditech barcode.
- Turn on auto-release.
- Verify any results that do not auto release.
- Enter and verify results from the Manual Laboratory Report Forms.
- **Enter alert value documentation where indicated**. **Provide Alert Value documentation to the Charge Tech**.
- Label each sample with the provided Meditech barcode label prior to archiving.


Downtime Barcode
DT Barcode # with CD
Last Name, First Name
Account Number
Test(s) Requested
914E
Doe, John
SA111111111
BMP, MG, P, AMY,LIP
ED
Location
14:00
Collection Time
914
DT Barcode #
1
Station #

CORE 7050 Jc

Centaur Downtime Job Aid

Downtime Phase

Forward all phones to 6800 to minimize interruptions for the technical staff during downtime.

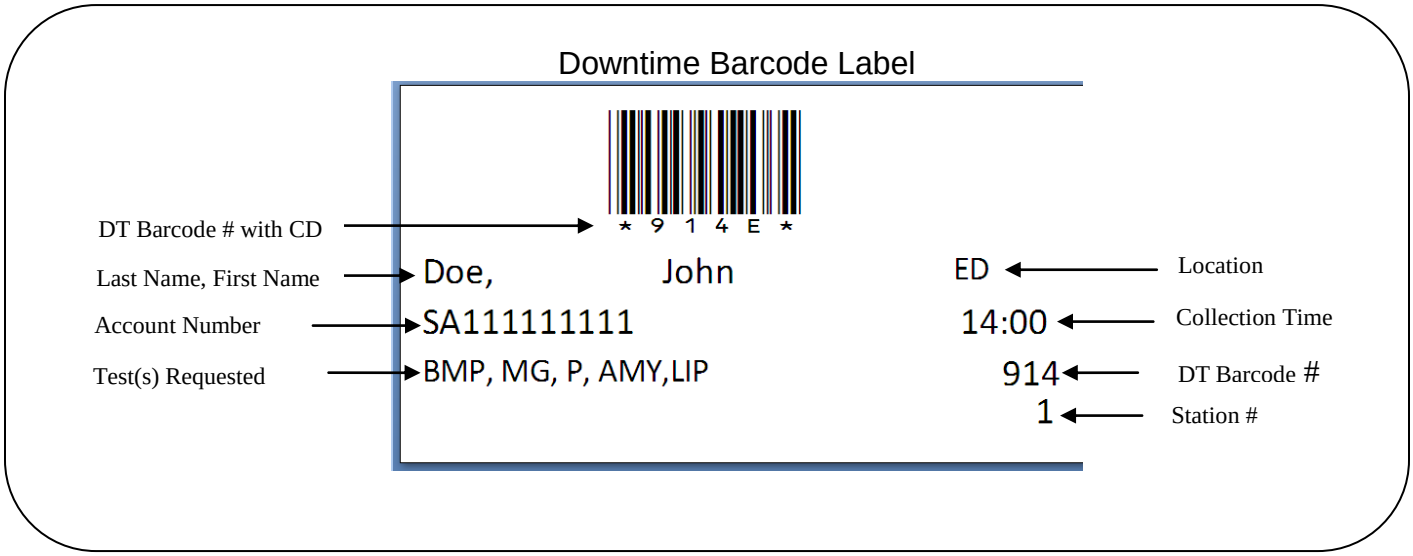
- Five minutes before Meditech is scheduled to go down stop the CT1 batch
- To create orders:
  - Select Worklist
  - Select Schedule
  - Select Patient
  - Select Schedule by SID (upper right corner)
  - Type on the Meditech or Downtime barcode number without the letter in the SID box
  - Press Enter (you do not need to enter the rack number and position)
  - Select required tests
  - Select Save
  - Repeat for all required samples
  - Close Schedule window
- If LIS Communication errors occur:
  - Select Worklist
  - Select LIS Communications (bottom of window)
  - Clear the Receive Requests from LIS box
  - Select Save
- Make sure all QC has been performed. QC ranges can be found in the analyzer QC software.
- Place tube in the rack with the barcode facing out and load on analyzer
- When testing is complete review all results for samples “In Check Range.” Make sure all indicated tests were completed.
- Transcribe patient results onto the Manual Laboratory Report Form.
- Check CORE 6910 Ja for testing notification information.
- Call alert values as required and document on printout including first and last name of person taking the results and the time of the call.
- Use a Manual Laboratory Report Form for all test performed on the Centaur and any manually performed tests and make 2 copies of each (3 total)
- Keep one copy at the workstation in the “Completed” bin.
- Place one copy in the “Send” bin in Processing.
- Place one copy in the “File” bin in Processing.

Recovery Phase

- Log into Meditech and open and start new CT1 batch.
- Transmit results from Centaur to the new batch.
  - Select desired samples from Worklist
  - Select LIS Communications
  - Select Send all Selected Results
- Lab assistants will bring logs and Meditech barcode labels to each workstation.
- Techs will match downtime barcode to Meditech barcode and verify all results.
- Enter and verify results from the Manual Laboratory Report Forms.
- **Enter alert value documentation where indicated**. **Provide Alert Value documentation to the Charge Tech**.
- Label each sample with the corresponding Meditech barcode label prior to archiving.

Centaur Downtime Job Aid

Downtime Barcode Label



Sysmex Downtime Job Aid

Downtime Phase

Forward all phones to 6800 to minimize interruptions for the technical staff during downtime.

- Five minutes before Meditech is scheduled to go down stop the MD2 batch
- Make sure there is paper in the printer

Be sure to change the following settings for both Sysmex analyzers

- Go to the setting icon on the tool bar and
  - Click HOST (HC) Setting
  - Remove check in box
  - Click Apply – this will disconnect Sysmex interface
- In the same program
  - Click Auto Output
  - Place check in box for GP
  - Click Apply – this will turn the printer on
  - Close window
- Place samples in rack and load on analyzer
- Downtime barcode labels are read by the analyzer when running in automated mode.
- **Do not remove any samples from racks until results have been matched.** When results print, match results by barcode # at the top of the printout to patient sample in rack.
- Review CBCD sample results for possible reflex testing (smear review or diff) as follows:
  1. the leukocyte count is <2.5 or >25 K/ul
  2. platelet count is <50 or > 1000 K/ul
  3. when the RDW >20%
  4. when the MCV >105fl.
  5. marked flagging (>250) for Blast, Imm Gran, Left Shift, Atypical Ly, Abn Ly/L_Bl, or PLT Clumps.
  6. when the automated differential yields the following results:.
     a) lymphocyte count is <10% or >55%*****
     b) eosinophils >20%
     c) basophils >5%
     d) monocytes >25%
     e) vote out for one or more cell parameters

If smear review or manual differential is not required – report auto differential.

If smear review or differential is required:

- Report automated diff if smear review agrees with results.
- Perform manual diff if indicated by smear review, one or more cell vote outs, or if ordered by physician
- If manual diff is performed, cover automated diff results on printout
- Make 2 copies of the instrument printout (3 total.)
- Check bright green packets for Reference Ranges, Alert Values and QC ranges.

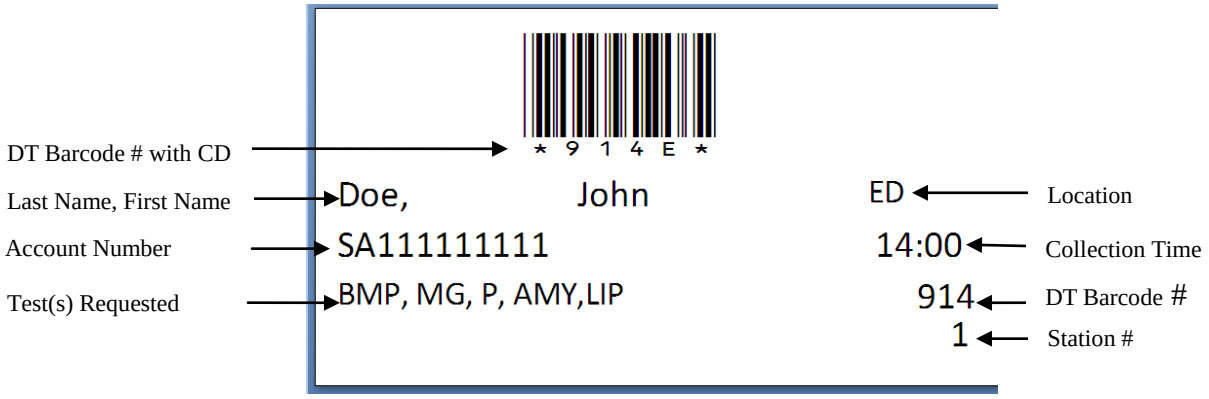
Sysmex Downtime Job Aid

- Call alert values as required and document on printout including first and last name of person taking the results and the time of the call.
- Use a Manual Laboratory Report Form for all manually performed tests and make 2 copies of each (3 total.)
- Keep one copy at the workstation.
- Send one copy to the floor or unit.
- Keep one copy in the Master File in Processing.

Recovery Phase

- Log into Meditech and open and start new MD2 batch.
- Transmit results from Sysmex to the new batch.
- Lab assistants will bring logs and Meditech barcode labels to each workstation.
- Techs will match downtime barcode to Meditech barcode and verify all results
- Enter and verify results from the Manual Laboratory Report Forms.
- **Enter alert value documentation where indicated**. **Provide Alert Value documentation to the Charge Tech**.
- Label each sample with the provided Meditech barcode label prior to archiving.

Downtime Barcode Label



BCS Downtime Job Aid

Downtime Phase

Forward all phones to 6800 to minimize interruptions for the technical staff during downtime.

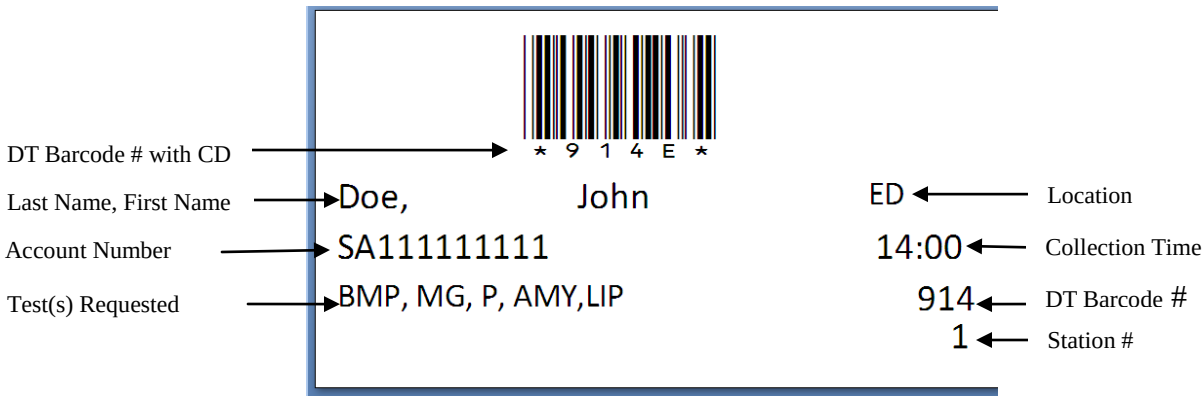
- Five minutes before Meditech is scheduled to go down stop both BCS1 and BCS2 batches
- Make sure there is paper in the printer
- Load the samples into the sample racks into consecutive positions.
- Click on the **LOADING** icon.
- Click on the rack number that corresponds to the sample rack (the rack number is highlighted)
- Click on the **Select rack** button (a picture of the sample rack is displayed)
- Click on the position number of the sample rack in which the sample has been placed.
- Click on the **Sample ID** box
- Enter the sample identification number.
- Under "Remarks", enter the patient name and location
- At the question **"Is the sample STAT?"** answer either yes or no.
    - "Yes" answer will result in a red "X" appearing in the box.
    - "No"---proceed to the next step.
- To request **Individual Assays**:
    - Locate the **assay box**
    - Click on the assay
    - Repeat the above steps until all assays are requested.
- To request **Profiles**:
    - Locate the Profile in the **profile box**
    - Click on the profile
    - Repeat the above steps until all profiles are requested.
- Click on the **INSERT** button and the sample ID appears in sample position of the rack and the next position of the sample rack is highlighted.
- **To request another:**
    - Sample in the same rack: Repeat steps 6-11
    - Sample Rack: Click on **OTHER RACK** button and repeat steps 3-11.
- Insert the sample racks into any open lane (An open lane is one without the LED illuminated or blinking.
- Push the rack until you feel it stop.
- Repeat above two steps until all sample racks have been loaded.
- The JOB LIST screen displays the samples loaded with a small green analyzer next to the sample ID. (The small green analyzer icon indicates the sample is currently loaded in the processing area). A red "X" appears in the intersection between the sample ID number and the test column and denotes that a test request for the sample is in progress.

- To set up results printing:
  - Go to JOB LIST screen
  - Go to Setup
  - Under Printout, select “Complete Printout”
  - Click “FILE” icon at the top of the screen
  - Select “Print”
  - Change number of copies to 3 (leave at 1 if using Manual Report Form)
  - Cancel to exit and save
- Sample processing begins automatically.
- Check bright green packets for Reference Ranges, Alert Values and QC ranges.
- Call alert values as required and document on printout including first and last name of person taking the results and the time of the call.
- Transfer results from the printout to a Manual Laboratory Report Form and make 2 copies of each (3 total.)
- Staple the printout to the Manual Report Form kept at the workstation.
- Keep one copy at the workstation.
- Send one copy to the floor or unit.
- Keep one copy in the Master File in Processing.

<u>Recovery Phase</u>

- Log into Meditech and open and start new batches for BCS1 and BCS2.
- Run a QC sample and verify results.
- Transmit results from each BCS to the new batch for that BCS.
- Lab assistants will bring logs and Meditech barcode labels to each workstation.
- Techs will match downtime barcode to Meditech barcode.
- Turn on auto-release.
- Verify any results that do not auto release.
- Enter and verify results from the Manual Laboratory Report Forms.
- **Enter alert value documentation where indicated**. **Provide Alert Value documentation to the Charge Tech**.
- Label each sample with the provided Meditech barcode label prior to archiving.

Downtime Barcode Label



BCS Downtime Job Aid

In the event the computer system is unavailable or inoperable during the required QC run times for the BCS analyzers use the following chart to determine QC is within acceptable range.

Current QC ranges for Coagulation

PT

Citrol 1 lot 528126	10.63 – 12.23
Citrol 3 lot 548411	37.94 – 51.54

PTT

Citrol 1 lot 528126	25.42 – 35.02
Citrol 3 lot 548411	46.89 – 60.89

Fibrinogen

Citrol 1 lot 528126	201.5 – 277.5
Citrol 3 lot 509945	60.1 – 112.9

D-Dimer

Level 1 lot 560759	0.250 – 0.370
Level 2 lot 560660	2.180 – 3.260

Rapid Response Bench Downtime Job Aid

Downtime Phase

Forward all phones to 6800 to minimize interruptions for the technical staff during downtime.

IRIS

- Five minutes before Meditech is scheduled to do down stop the Iris interface.
- Turn on Iris printer by:
    1. Go “Off line” on main screen.
    2. Select “Settings”
    3. Select “Release”
    4. Select “Printer” option (Turn of when downtime is complete)
- Place specimens on Iris to be run.
- In order to obtain printout of results you must “Edit” and then “Accept” results.
- Write patient name and account number on result form and attach urinalysis reference ranges to patient printout and send both to provider. Ranges can be found on page three of this document.

    *A manager login is required to change the printer settings. If there is not a technologist present with that access, log in to the “DONWTIME” user on the Iris with the password, “STAGNES”. Once the settings are changed, please log in with your normal username.

Note:

1. Technologist must perform a manual microscopic to confirm presence of sperm before releasing results.

2. Microscope should be used to identify Oval fat bodies (to view using polarized light), Fat (to view using polarized light),Trichomonas (to observe motility), and Cellular Casts (only necessary when the operator cannot make a definite identification of the cell type using the iQ)

3. Positive Ascorbic Acid levels may affect the urine chemistry blood pad. Comment will be displayed to physicians - “Ascorbic Acid was detected in this specimen and may produce a false-negative result or decrease the amount of measured blood in the urine. Interpret test with caution.

Triage Tests

- Leave the Triage batches running during the downtime
- Enter User ID as usual
- Scan the downtime barcode number using the Triage scanner
- Enter results for each patient from the Triage printout on the Meditech Downtime Manual Report Form.

Reflex Testing Reminders

- Positive serum pregnancy samples from the ED to Chemistry for BHCG Quantitative
- Negative rapid strep samples to Microbiology for culture

- Positive rapid HIV samples to Send Outs for confirmatory testing

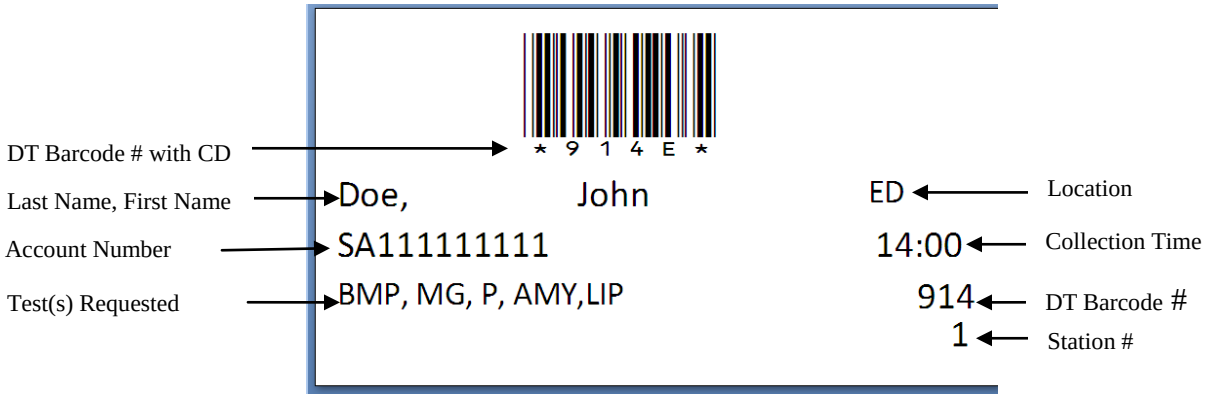
All Testing performed at the Rapid Bench

- Check bright green packets for Reference Ranges, Alert Values and QC ranges.
- Call alert values as required and document on printout including first and last name of person taking the results and the time of the call.
- Use a Manual Laboratory Report Form for all manually performed tests and make 2 copies of each (3 total.)
- Make 2 copies of each IRIS Report (3 total.)
- Keep one copy at the workstation in the "Completed" bin.
- Place one copy in the "Send" bin in Processing.
- Place one copy in the "File" bin in Processing.

Recovery Phase

- Log into Meditech
- Restart Iris interface with same batch.
- Select "Check LIS" on main screen. Should read "OK".
- Once the interface is back up and running, you must re-send all patients' results to Meditech for verification:
  - Go to "Worklist" screen
  - Select "Search"
  - Enter in specimen ID you want to transmit.
  - Select 'Re-Report", Select, "LIS" and OK to send.
- Lab assistants will bring logs and Meditech barcode labels to each workstation.
- Techs will match downtime barcode to Meditech barcode and verify all results
- Enter and verify results from the Manual Laboratory Report Forms.
- **Enter alert value documentation where indicated**. **Provide Alert Value documentation to the Charge Tech**.
- Label each sample with the provided Meditech barcode label prior to archiving.

Downtime Barcode Label



Urinalysis Reference Ranges

Macroscopic	
Color	Straw-Amber
Appearance	Clear
Specific Gravity	1.005-1.035
pH	5.0-8.0
Leukocyte Esterase	Negative
Nitrates	Negative
Protein	Negative
Glucose	Negative
Ketones	Negative
Urobilinogen	<2.0
Bilirubin	Negative
Blood	Negative
Reducing Substances	Negative

Microscopic	
WBC	0-2
RBC	0-2
SquamousEpitehial Cells	0-2
Non-Squamous Epitehial Cells	0-2
Hyaline Cast	0-2

Core Laboratory Alert Values

Coagulation		
Assay	**Upper**	**Lower**
PT (INR) – **Super Alert**	6.0	None
aPTT-sec	100	None
HIT Assay (Also notify pharmacy)	Positive	None
Hematology		
Assay	**Upper**	**Lower**
WBC K/uL	50.0	<2.0
• (0 – 18 yrs)	30.0	<3.0
HGB gm/dL	18.0	6.6
• (3m – 11 yr)	None	6.6
• (1 day – 3m)	22	<8.0
HCT - %	55	21
• (3m – 11 yrs)	None	21
• (1 day – 3m)	66	24
Platelet – K/uL	1000.0	25.0
• (0 – 18 yrs)	1000.0	50.0
Sickle Test	Positive	None
Malaria Smear	Positive	None
Point of Care		
Troponin I >0.40		
Chemistry		
Assay	**Upper**	**Lower**
Calcium – mg/dL – **Super Alert**	13.9	6.0
Total CO_2 – mmol/L	50	12.0
CRP (neonate to 30 d)	>5	None
Free T4	>7.76	None
Glucose – mg/dL – **Super Alert**	400	50
• 30 d -18 yrs	400	50
• neonate to 30 d	150	50
Ionized Ca – mmol/L	1.5	0.88
Troponin T	0.09	None
Lactate – mmol/L	4.0	None
Potassium – mmol/L – **Super Alert**	6.0	2.8
Sodium – mmol/L	158	120
Magnesium – mg/dL – **Super Alert**	7.0	1.0
• (0 – 18 yrs)	4.0	1.0
Bilirubin – mg/dL Adult	None	None
• neonate to 30 d	>20	None
Phosphorus – mg/dL (>18 yrs)	None	1.0
• (0 – 18 yrs)	8.0	2.0
Therapeutic Drugs		
Assay	**Upper**	**Lower**
Acetominophen mcg/mL	20	None

Core Laboratory Alert Values

Amikacin – trough	5	None
Carbamazepine – ug/mL	10	None
Digoxin – ng/mL ● also notifiy pharmacy	2.4	None
Free Phenytoin – ug/mL ● also notify pharmacy	2.5	None
Gentamicin – trough	2	None
Phenobarbital – mcg/mL	40	None
Dilantin – mcg/mL	20	None
Procainamide - ug/mL	8	None
Procainamide+NAPA	28	None
Quinidine – mcg/mL	6	None
Salicylate – mg/dL	30	None
Theophylline – ug/mL ● also notify pharmacy	20	None
Tobramycin – trough	2	None
Valproic Acid mcg/mL	100	None
Vancomycin Trough	25	None
Lithium – mmol/L	1.5	None
Blood Gas		
Assay	**Upper**	**Lower**
Arterial Blood Gas Panel/ Adult		
● pH	7.55	7.2
● pCO2	60	19
● tCO2	40	11
● HCO3	40	10
● pO2	None	50
● O2sat	None	85
Arterial Blood Gas Panel / 0-28 days old		
● pH	7.55	7.2
● pCO2	50	19
● pO2	None	50
Venous Blood Gas Panel		
● pH	None	7.2
● O2sat	None	60
Cord Arterial / Venous Blood Gas Panel		
● pH	None	7.2
Carboxyhemoglobin Profile		
● tHb	None	<7
● OxyHb	None	<83
● CoHb	>15	None
● MetHb	>10	None