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**For detailed information on the operating of the 8100 or specific troubleshooting please refer to the Cobas 8100 Automated workflow Series Operator Notebook.**

**Sample Priorities:**

Samples will be loaded based on the configuration of the route for the loading lane selected. Samples should be loaded based on priority set at the time of ordering not the location or true STATs may be delayed.

STAT samples should be loaded as they are received into the lab to meet established turnaround times and onto the appropriate lane based on centrifuging requirements. STATs are based on the priority set at the time of ordering.

Timed samples will be treated the same as Routine samples as the priority is set for the specimen collection not for the processing of the sample.

Routine labs can be loaded in batches. It is important to watch routine samples to ensure they stay within stability if loading in batches.

*NOTE: Hematology samples will not sort to the STAT OBS unless the priority is set at the time of ordering even if placed in the STAT route.*

**8100 IPB (Input Buffer) Lanes:**

Lane selection is based on specimen priority and centrifuging requirements.

* STAT- Already Spun
* STAT - To be Spun
* Routine - Already Spun
* Routine - To be Spun

*NOTE: Do not load any aliquot tubes onto any lane with the exception of Urine Tubes onto the 8100. The 8100 is designed for primary tubes only. See Processing Aliquots in the Send out section for processing instruction of aliquoted specimens.*

**Basic Loading instructions**

Specimens are loaded via the loading trays or the STAT single specimen loading lane on the IPB (Input buffer).

This is a general overview on the expectations for loading specimens. For additional details please refer to the Cobas 8100 Automated workflow Series Operator Notebook Pages 93-101

**Routine Specimens**

(For additional details refer to the Cobas 8100 Automated workflow Series Operator Notebook Pages 93-100)

* Select the appropriate loading drawer based on:
	+ Specimen Priority
	+ Centrifuging requirements
* Load starting at the back furthest point for the designated tray.
* Do not skip spots when loading.
* Gently push the drawer closed after loading specimens.
* Once the drawer is closed it will lock until all specimens have been moved onto the track.
* Once the rack is empty the loading drawer will unlock and be ready for additional samples.

**STAT Samples**: *(For more details refer to the Cobas 8100 Automated workflow Series Operator Notebook Pages 100-101)*

* Select the appropriate lane for the STAT specimen based on the centrifuging requirements.
	+ For STATs that need centrifuging load onto the STAT to be Spun Lane. This lane is a single sample load directly into a shoe.
		- Load the sample(s) into the shoes
		- Once samples are loaded push the STAT button to advance the shoes and begin processing.
	+ STATs that do not need centrifuging
		- Load into the STAT Do Not Spin loading drawer
			* Once all specimens are loaded close the drawer and specimens will begin to process
			* The drawer will lock until all specimens have been moved from the tray to shoes to begin process
		- For single samples you can use the STAT Single tube lane and load into the individual shoe and press Routine

**Basic Unloading Instructions**

This is a general overview on the expectations for unloading specimens from the OBS. For additional detailed information please refer to the Cobas 8100 Automated workflow Series Operator Notebook Pages 117-122

**OBS 1- Output buffer/sorter** (Hematology and Coag)- When unloading samples from the OBS1 you must remove the entire tray and replace with an empty tray OR swap trays in the drawer this is the only way it will reset.

* The Lock button will be lit when samples are in the tray as it is an active tray and filling on a consistent basis.
* When ready to remove the tray, click on the lock button.
* The lock button will flash and the light will go.
* When the light is out you will pull the drawer open and remove the rack.
* Place the samples in the appropriate location in the staging area.
* Place a new empty rack into the drawer
* Gently close the draw.

NOTE: It is important to promptly remove Hematology and Coag samples from the system once arrived in the OBS1 and place in the appropriate location on the staging table for testing.

**OBS 2 – Output buffer/sorter** (Sendout, Manual Chem, Phadia and Osmo)

Unloading the OBS2

* Remove the rack from the system. DO NOT take the tubes out without removing the rack itself.
* Replace the rack with a new rack so that the system will reset. You can swap the front and back rack. Do not place the same rack back into the same location or the system will not reset.

Removing Sendout:

NOTE: When opening the Sendout drawer you do not need to remove the samples from the Manual Chem, Phadia or Osmo racks.

* The Lock button will be lit when samples are in the tray as it is an active tray and filling on a consistent basis.
* When ready to remove the tray, click on the lock button.
* The lock button will flash and the light will go.
* When the light is out you will pull the drawer open and remove the rack.
* Place a new empty rack into the drawer.
	+ Extra racks should be stored on top of the 8100 near sendout for easy access.
* Gently close the draw.
* Deliver the samples to the Sendout bench.

Manual Chem, Phadia and Osmo drawer will be managed by the technical staff.

* If you notice this drawer is full notify a tech that their prompt attention is need.

**Specimen Retrieval:** Specimen retrieval is done through the Cobas Infinity app. For the full instructions to include screenshots refer to the Specimen Retrieval instructions.

Log onto Cobas Infinity

Select **Lab Flow**

Click on the down arrow beside menu.

Select Workflow > Sample Tracking

The Sample Tracking Screen Appears:

* Change **Order Regist**… to **ALL** (default is Since Yesterday)
* Enter or scan the **CID** into the **Tube Identifier** field.
* Press ENTER
* Sample tracking will appear on the right side of the screen.
	+ The sample tracking result will show you where the sample has been and where it is currently.

Note: the blue indicates the current location of the specimen.

* Samples can only be electronically retrieved if it is in the AOB.
* Samples in the OBS\_Archive or Manual Archive Heme or Chem will need to be manually retrieved using the location information found on the sample tracking screen.

To electronically retrieve a sample

* Click on the Sample Quality button at the bottom middle of the screen (click on the down arrow beside the words Sample Quality)
* From the list select Force Target
	+ For Add Ons select the Add On OBS target. The Add On OBS target should only be used for samples being retrieved to complete an add on. All other retrievals should be sorted to the Force Retrieve to OBS.
		- Samples forced to the Add On OBS Target will be sent to the Add On tray on the IPB.
	+ For all other samples select Force Retrieve to OBS.
		- Force Retrieve to OBS will send the sample to the “Manual Retrieve” tray in the OBS.

**CHEMISTRY**

All Chemistry tests will be loaded onto the 8100 with the exception of Ammonia samples (see Ammonia Sample section below for processing instructions).

1. Sample are to be loaded into one of the corresponding IPB trays based on the test priority and centrifuging requirement.
2. Once loaded onto the 8100 chemistry tests will route to the appropriate analyzer or sorting tray for those samples run offline.
* Offline Chemistry tests will sort in the following trays:
* Manual Dilutions
* Manual Chem
* Phadia
* Osmo
1. The Chemistry tech will be responsible for removing the samples in the offline chemistry IPB trays.

***NOTE:*** *If the lane becomes full the Quarterback must remove the samples and give to the chemistry tech or notify the chemistry tech that the lane is full and needs immediate attention. DO NOT leave any lane full as it will hinder operations.*

**Special considerations for Chemistry:**

Urine Chemistries:

* Ensure the urine is aliquoted into a Urine Chemistry tube.
	+ **Note**: Cone shaped bottom aliquot tubes will not be processed by the 8100, these will route to the Error Lane of the IPB and will cause an error alarm. Manual process these specimen and place into the Tech Review rack on the staging table to be front loaded.
* Place urine tube into the correct priority based on order and “To be Spun”
* Urine chemistries will process in the same manner as the rest of the chemistry tests once placed onto the 8100.

Ammonia Samples:

* Receive specimen in Sunquest
* Place specimen in Centrifuge on the staging table
* Notify the Quarterback that there is an Ammonia spinning.
* Quarterback will remove specimen from centrifuge promptly after centrifuge has stopped.
* Load specimen onto the 8100 in the **STAT Already Spun Lane.**

Lactic Acid Samples:

* Lactic Acid samples will go directly onto the 8100 without any manual processing.
* Lactic Acid test MUST be loaded onto the **STAT To Be Spun Lane**.
* Lactic Acid tests must be handed to the Quarterback as soon as received in the lab to ensure it remains within stability (15 minutes after collection).

**HEMATOLOGY**

All Hematology specimens will be loaded onto the 8100 in the correct tray according to Priority set at the time the order is placed.

Hematology samples will Receive and Sort only.

CBCs (Sysmex):

CBCs will sort into one of two Sysmex racks STAT or Routine according to the priority set at the time of order regardless of which loading lane they were placed onto.

STAT CBCs:

* + - Remove STAT CBCs immediately once arrived in the OBS and deliver to the staging area.
		- Place the STAT CBC racks in the designated area on the staging table, alerting the technical staff verbally.

Routine CBCs:

* + - Remove Routine CBCs as the racks fill, do not leave samples in the OBS for long periods of time as it will impact turnaround times.
		- Place Routine CBC racks in the designated area in the staging area.

NOTE: Sysmex racks must be removed from the system and replaced with an empty one when removing CBCs from the 8100. Do not remove tubes directly from the Sysmex racks while they are on the 8100.

Manual Heme: All other hematology samples will sort to the Manual Heme rack.

Manual Heme samples will not sort the routine samples from the STAT samples even if the priority is set at ordering and placed on the STAT lane. When removing the manual hematology sample view each label to identify the priority and sort accordingly.

* + Remove the Manual Heme samples as the racks fill, do not leave samples in the OBS for long periods of time as it will impact turnaround times.
	+ Place Manual Hematology specimens in the Manual Heme Rack on the staging table.
	+ Remove rack from the drawer and replace with an empty one.

***NOTE:*** *Do not remove samples from tray while on the 8100, the tray must be removed and replaced with an empty tray to reset.*

* Deliver the sample to the corresponding rack on the staging table ensuring STATs and Routines stay separate as marked within the rack.

Archiving

* After testing is complete the Hematology technical staff will transfer the samples back into a 50 position 8100 rack.
* Once the rack is full or throughout the shift the hematology tech will deliver the rack to the Quarterback to Archive.
* Quarterback will determine the best time to load the Archiving samples. This should not be done ahead of STAT work. Archiving should be done during a time where there are little to no pending samples to be loaded and throughout the shift for easy access. It will be left to the discretion of the Quarterback when to load.
* Samples to be archived will be loaded in the Archive Only drawer.

*Note: Hematology samples must be placed on the 8100 to receive and sort in order to archive properly. If the hematology sample has not been previously loaded onto the 8100 it will not archive it will sort into the hematology OBS tray for processing, should this occur, remove the sample and place back into the Archive Only tray to be archived.*

COAGULATION SAMPLES:

* Place samples onto the 8100 for Receipt and Sorting Only.
* Coags will be sorted into the Coag drawer on the OBS
* When specimens arrive at the OBS Coag drawer, promptly remove the samples and deliver directly to the Coag rack on the staging area.

Stroke:

DO NOT place Stroke Coags on the 8100.

DO NOT place the Coag sample for a Stroke patient in the staging area

Deliver the sample directly to the technical staff notifying verbally of the Stroke.

See Stroke Protocol for additional instructions.

Archiving: Coag samples will not be Archived on the 8100 to include JICBLU specimens. Coag samples will remain in the department until disposal.

If a Coag sample (blue top) is placed on the 8100 to archive it will route to the Coag rack in the IPB to be delivered back to the Coag department. These samples will not route to archiving.

URINALYSIS:

* Urinalysis samples will be manually received and placed in the UA rack in the staging area.
* Urinalysis samples will not be placed onto the 8100.
* Urinalysis samples will not be archived on the 8100.

MICROBIOLOGY:

* Microbiology samples will be manually received and placed into the Microbiology bin in the staging area.
* Microbiology samples will not be placed onto the 8100.
* Microbiology samples will not be archived on the 8100, they will be stored in Microbiology.

BLOOD BANK:

Blood bank samples will not be loaded onto the 8100 for processing.

* Manually receive blood bank samples to include serology tests.
* Deliver directly to the blood bank department.
* Load samples into the centrifuge in blood bank for any specimens requiring centrifugation.
* Verbally alert the technical staff.

SEND OUTS:

All send outs received in master tubes will be placed onto the 8100 for receipt, aliquoting (if indicated) and sorting except for blue top tubes for send outs which generally need special processing.

Light Blue top send out specimens.

* Blue top send out specimens will be rejected at the IPB and be placed into the Error lane on the IPB.
* Deliver the rejected sample to the Send out staff to be received and manually processed according to the send out lab instructions.

Send out samples will be loaded onto the 8100 according to the centrifuge requirements of the sample.

Send out samples will be loaded on the Routine Lane. Send out samples do not qualify for STAT processing and should not be loaded onto the STAT lane even if the priority was set at the time of ordering.

* Send out samples are programmed to receive, aliquot (when appropriate) and sort.
* Send out samples will sort to the following lanes:
* Send out Frozen
* Send out Refrig
* Send out Ambient.
* Some Send out samples will be rejected at the IPB to include any light blue top send outs.
* Deliver all send out specimens from the IPB Error lane to Send outs and put in the designated rack.
* Send out staff will:
	+ - Receive sample in Sunquest.
		- Manually process according to the send out lab requirements.

Removing and Distributing Samples:

* Send out staff will remove send outs from the OBS2. This should be done periodically throughout the day to ensure the racks do not become full.
* The Quarterback will monitor the racks and either remove or notify the Send out staff once they are almost full.
* Remove the 8100 rack from the system and replace with a new (empty) rack when unloading send outs. Do not remove samples directly from the rack while it remains on the system, the rack will not reset.
* Deliver specimens to the corresponding areas in the send out department paying close attention to storage temperature when distributing to maintain the specimen integrity.
* Specimens aliquoted on the 8100 will need to be decanted in the send out department and relabeled with the aliquot label prior to batching.

Aliquot tubes

* Specimen received from offsite locations may be aliquoted upon receipt.
* Aliquot tubes are not permissible on the 8100, DO NOT load.
* Deliver the Aliquot tube and Master tubes to Send outs.
* Send outs will:
	+ Manually receive the aliquot tube if not done already (majority should already be received)
	+ Place the Master tube in the Master tube rack.
	+ Process manually according to the reference lab requirements.

Aliquot Specimens for Inhouse testing:

* Specimens received in an aliquot tube for inhouse testing will need to be
	+ Manually received if not already received.
	+ Delivered to the technical area for processing.

NOTE: Aliquot tubes cannot be loaded onto or Archived on the 8100.

DROP OFFS (Specimen from WDH Outpatient Labs):

* All drop offs will be tracked into batches in Sunquest.
* Do not disband from the batch.
* Sort specimens in the following manner:
	+ 8100 To be Spun
	+ 8100 No Spin
	+ Sendout Aliquots
	+ Urinalysis
	+ Blood bank
	+ Micro

*NOTE: Specimens should be sorted using bins or racks to prevent misplacing specimens. NEVER place loose specimens directly on the counter to sort.*

Once the samples are sorted:

* Deliver 8100 racks to the Quarterback to be load
* Aliquoted Send outs: Delivery to the Send out area, place in the To Be Processed Rack.
* Sendout Master tubes (tubes that have already been aliquoted): Deliver to the send out area.
* Micro Samples: Deliver to the Micro bin on the staging table.
* Urinalysis: Deliver to the staging area and place in the Urine rack.
* Chemistry Urines:
	+ If Urine is received not aliquoted, aliquot the sample deliver to Quarterback for loading.
	+ Aliquoted urine: Deliver to the Quarterback to load.
		- If sample is aliquoted into a coned bottom tube it can not be loaded onto the 8100 and will need to be centrifuged and processed manually.

**JIC Tubes:**

JIC tubes should be in a timely manner.

The following JIC tubes will be placed onto the 8100 to be receive and stored:

* JICSS
* JICPS
* JICLV

JICBLU Tubes will not be loaded onto the 8100.

* Order
* Collect
* Receive
* Deliver to the Coag rack in the staging area.

JICBLU will be stored within the department at room temp.

MANUAL ARCHIVING

Manual Archiving will be used by the technical staff to archive samples that have manually processed/front loaded.

Samples that have not been on the 8100 once prior can not be archived on the 8100 and will need to be manually archived.

The below is a summary of the instructions on how to manually archive. Refer to the Cobas 8100 Automated workflow Series Operator Notebook Pages

* Log onto Cobas Infinity
* Select WorkFlow
* Manual Archive
* Workplace = Manual Archive
* Target= Chemistry Manual or Heme Manual
* Tube Type = All
* Click in the Tube ID field
* Scan each tube to rack
* Continue to scan until rack is full.
* For a new rack click on Tray Change