



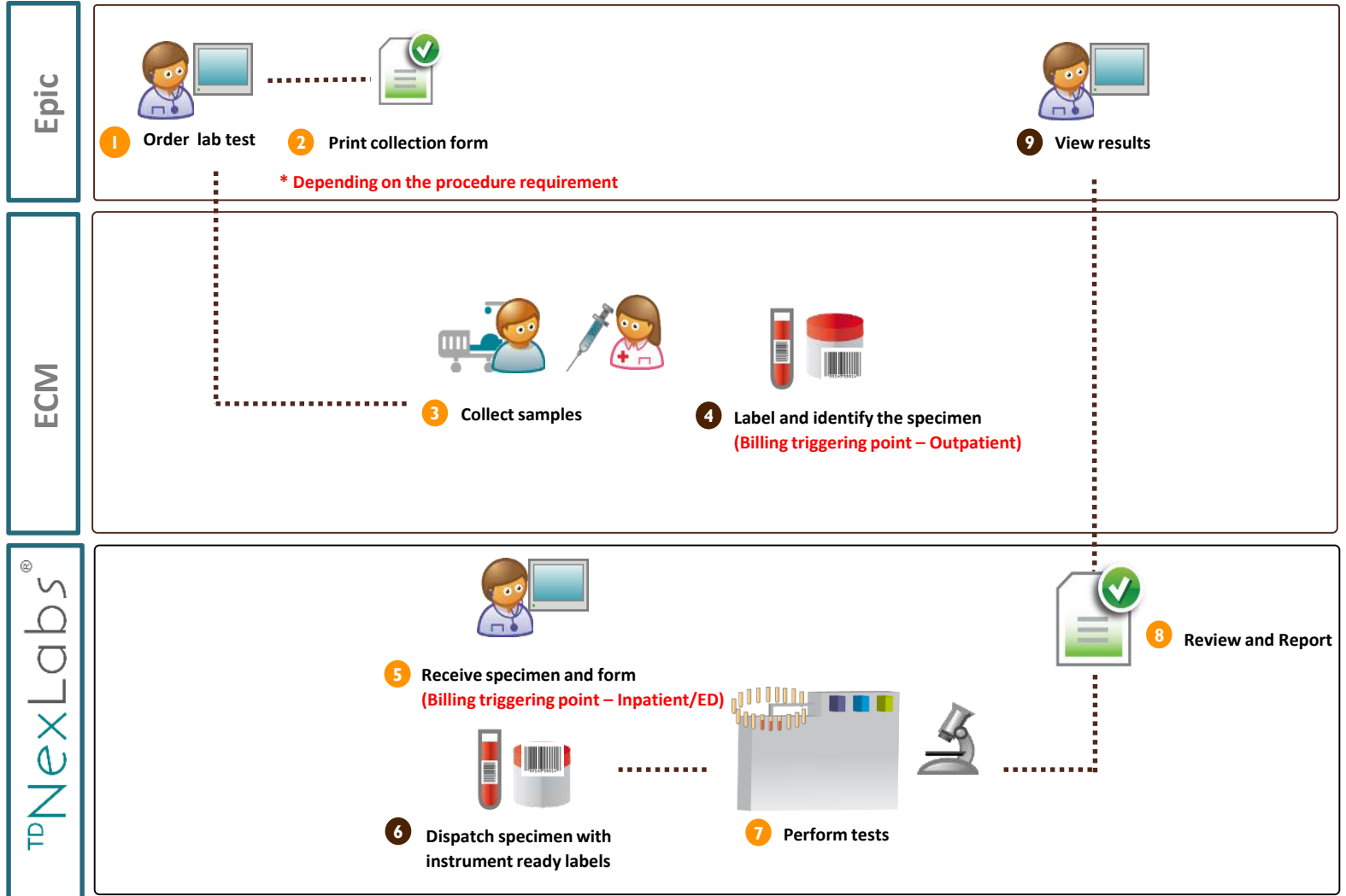
ECM Trainers Training



Agenda

- ❖ End to End Workflow
- ❖ Sample Collection Process
- ❖ Performing Order Search
- ❖ Label display for OGTT test
- ❖ Items To Take Note
- ❖ Demo
- ❖ Simple Troubleshooting Guide
- ❖ Q&A Session
- ❖ Label Description
- ❖ How to perform labeling and correct orientation of specimen labeling

End to End Work Flow



Sample collection process

INPATIENT



Launch ECM icon from user desktop or context switch (pending build)



Welcome to EGIS ECM Module

User name

Password

Login

Login to TTSH ECM with NHG ADID account and password



ECM
Tan Tock Seng Hospital Home Logout

1 Location
WARD 03A

Ordering Location

2 Terminal
Terminal Location: 604, C

Welcome to ECM
an EGIS solution

Missing Specimen
0

3 Search: STEST888X

4

priority	List of test to be done	Specimen Type	Specimen Source	Status	Collected By	Collection date/time	Ordering Doctor	Order date	Notes
32	routine Dipstick, Urine (DX)	Urine	Urine, Mid-stream	Ordered			QUAH TEIK JOO :15799F	05/01/2021 15:50:01	
33	routine Full Blood Count (FBC)	Blood	Artery	Ordered			QUAH TEIK JOO :15799F	05/01/2021 15:50:01	
34	routine Renal Panel - Na, K, Cre	Blood	Artery	Ordered			QUAH TEIK JOO :15799F	05/01/2021 15:50:01	

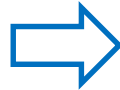
5

Showing 1 to 3 of 3 entries (filtered from 159 total entries) 4 rows selected

Sample collection process



Launch ECM icon from user desktop



Welcome to EGIS ECM Module

User name

Password

Login

Login to TTSH ECM with NHG ADID account and password



1

2

3

4

5

Collection Location

Terminal

Missing Specimen 0

Location CLINIC 2A

Scan PatientID

Terminal Terminal Locator

Column visibility Reprint Label Collection Form Collect Notes

Print Plain Label

	Ft	Location	Specimen Source	Special Instruction	Patient ID	Patient name	Test date	Priority	List of test to b
1		Clinic 2A	Urine, Mid-stream		STEST888X	TOH TIANG SANG	05/01/2021 15:49:00	Routine	Dipstick, Uri
2		Clinic 2A	Artery		STEST888X	TOH TIANG SANG	05/01/2021 15:49:00	Routine	Full Blood C
3		Clinic 2A	Artery		STEST888X	TOH TIANG	05/01/2021	Routine	Renal Panel




Sample collection process

Sample collection

Patient ID
STEST888X

6

Patient name
TOH TIANG SANG

Seq. 01	Seq. 02	Seq. 03	Seq. 04	Seq. 05	Seq. 06	Seq. 11	Seq. 12
LightGreen	Purple	Plain 20ml co					
							
Re-Print	Re-Print	Re-Print					
Blood	Blood	Urine					
<input type="text"/>							
1013143232	1013143231	1013143233					
Artery	Artery	Urine, Mid-str					
Renal Panel - Na, K, Cre	Full Blood Count (FBC)	Dipstick, Urine (DX)					

7

9

Scan SID
barcode after
sample
collection



Return to main page

10

8






Sample collection process

When a wrong specimen ID is scanned

Sample collection

Patient ID: STEST888X
Patient name: TOH TIANG SANG

[Return to main page](#)

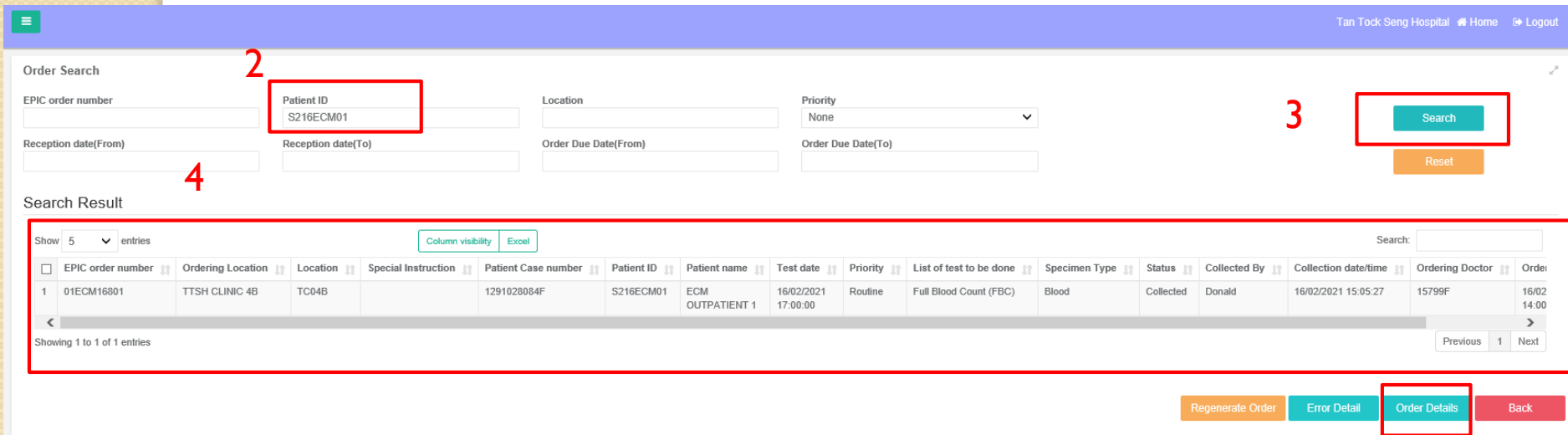
Seq. 01	Seq. 02	Seq. 03	Seq. 04	Seq. 05	Seq. 06	Seq. 07	Seq. 08	Seq. 09	Seq. 10	Seq. 11	Seq. 12
LightGreen	Purple	Plain 20ml co									
											
Re-Print	Re-Print	Re-Print									
Blood	Blood	Urine									
<input type="text" value="123010001"/>											
1013143232	1013143231	1013143233									
Artery	Artery	Urine, Mid-str									
Renal Panel - Na, K, Cre	Full Blood Count (FBC)	Dipstick, Urine (DX)									

Wrong Specimen ID

[Back](#)



Performing of Order Search (1/2)



Performing of Order Search (2/2)

To access functions such as

- (a) Reprinting of labels/Collection Form
- (b) Notes
- (c) Error Log
- (d) Printout Performed
- (e) Collection History

The screenshot displays the 'ECM Order View' interface. At the top right, it shows 'Tan Tock Seng Hospital' with 'Home' and 'Logout' links. The main content area is divided into two sections. The upper section contains patient and order details in a grid format. The lower section features a navigation bar with tabs for 'Price', 'Samples', 'Messages', 'Notes', 'Error Log', 'Printouts', and 'Latest Action'. Below the navigation bar is a table with columns for 'Accession Number', 'Sample ID', 'Specimen Type', 'Status', 'Test', 'Collected By', 'Collection date/time', and 'Collection Place'. A red box highlights the 'Reprint SID Label', 'Reprint Plain Label', and 'Collection Form' buttons above the table, and the first row of the table. The first row contains the following data: Accession Number 1023143312, Sample ID 3503143312, Specimen Type Blood, Status Collected, Test Full Blood Count (FBC), Collected By Donald, Collection date/time 16/02/2021 15:05:27, and Collection Place TTSH CLINIC 4B. Below the table, it says 'Showing 1 to 1 of 1 entries'.

EPIC order number 01ECM16801	Status Collected	Test date 16/02/2021 17:00:00	Order reception date 16/02/2021 10:12:27	Priority Routine	Exit
Patient ID S216ECM01	Patient Case number 1291028084F	Patient name ECM OUTPATIENT 1	Patient surname		Save
Collection Site 451	Patient type Singapore Citizen Subsidized	Ordering Doctor 15799F			

Price **Samples** Messages **Notes** Error Log Printouts Latest Action

[Column visibility](#) [Reprint SID Label](#) [Reprint Plain Label](#) [Collection Form](#)

<input type="checkbox"/>	Accession Number	Sample ID	Specimen Type	Status	Test	Collected By	Collection date/time	Collection Place
<input type="checkbox"/>	1023143312	3503143312	Blood	Collected	Full Blood Count (FBC)	Donald	16/02/2021 15:05:27	TTSH CLINIC 4B

Showing 1 to 1 of 1 entries

Label display for OGTT test

4603000474

ECM TEST PATIENT OP1

S323EOP01

1033000474



OGT2

GREY

FASTING [VEIN]

CH

15799F
1/2

TC02B

TW02B

23/03/2021 12:07:56

4643000474

ECM TEST PATIENT OP1

S323EOP01

1033000474



OGT2

GREY

120 MINUTES [VEIN]

CH

15799F
2/2

TC02B

TW02B

23/03/2021 12:07:56

Items to take note

Item	Things to take note
Tests that can be collected in ECM	<p>Pending orders to be collected are displayed</p> <ul style="list-style-type: none">- Blood, stools, swabs can be collected in ECM- Pathology test are not collected in ECM <p>(The detailed list of tests included and excluded from ECM can be found in ECM e-learn and Intranet - Lab notice board).</p>
Printer setup	<p>-Using wireless printer, printout will be automatic printed to the printer</p>
Cancellation of test after collection is performed	<p>-No change in the current workflow, nursing to work with lab on the cancellation of test.</p>

Items to take note

Item	Things to take note
GXM Test	<ul style="list-style-type: none">- For GXM Test, authorised collector need to sign on both the collected specimen tubes and collection form.<ul style="list-style-type: none">• PSAs are NOT allowed to do GXM.• Certified RNs are allowed to take GXM.
Collection Performed at Different Location	<p><u>SOC/ED</u></p> <ul style="list-style-type: none">- Displays all pending collection procedure for the selected patient regardless of the ordering location- 1 specimen collector serving 1 patient at a time based on the Q-ticket in SOC/ED <p><u>Inpatient</u></p> <ul style="list-style-type: none">- Display only pending collection for the selected patient in the selected ward- 1 specimen collector serving different patients that is in the ward
Context Switch (pending build)	Pending build – in future will be able to open ECM from Epic.

Items to take note

Item	Things to take note
<p>Future orders will not be seen in ECM</p> <p>The diagram shows a timeline from 21:00hrs on Feb 1st to 04:00hrs on Feb 2nd. A vertical line at 00:00hrs marks the 'Epic release past pending order and Today's order to ECM'. To the left of this line, two 'Specimen collected' events are shown. To the right, 'Specimen not collected', 'Today's order', and another 'Today's order' are shown. Brackets indicate that collected specimens drop off in ECM, while past pending orders and today's orders remain visible.</p>	<p><u>Inpatient or ED (Orders are date-based)</u></p> <ul style="list-style-type: none"> - Today's and previously pending orders will flow into ECM from Epic after 12 midnight <p>If future orders needs to be collected, nurses are to manually release from Epic</p>

Items to take note

Item	Things to take note
<p>Future orders will not be seen in ECM</p> <p>Scan Queue Chit</p> <p>Epic release past pending order and Today's order (test expected to be performed within the next 24 hours) to ECM</p> <p>1st Feb 2021</p> <p>2nd Feb 2021</p> <p>09:00hrs</p> <p>08:59hrs</p> <p>Today's order for 09:15</p> <p>Orders will not be shown in ECM</p> <p>Past pending orders and today's orders will be shown in ECM</p> <p>Specimen not collected</p> <p>Today's order</p> <p>Today's order</p>	<p>Outpatient (Orders are time-based)</p> <ul style="list-style-type: none"> - Pending and today's orders (test expected to be performed within the next 24 hours) will automatically flow into ECM when the patient is actualized in Epic by scanning the Q-Ticket <p>If future orders needs to be collected, nurses are to manually release from Epic</p>

Items to take note

When multiple user access the same patient record

The screenshot shows a web browser window with two tabs labeled 'Sample collection'. The address bar shows the URL 'ttshecmuat.nhg.local/biobank/app/lims'. The page header includes 'Tan Tock Seng Hospital' and 'Logout'. A sidebar on the left identifies the user as 'Celine Tan Wen Jie (ZEGSCELINE) Vendor'. The main content area displays a patient record for 'TTSH CENTRE FOR GERIA' with specimen ID 'S57TEST8G'. A modal dialog box is overlaid on the page, displaying the following text: 'The patient record is currently locked by User: Thum Wei Wah Collection Place: TTSH WARD 03B Terminal: TTSH_B_ZQ520_IP224'. A 'Back' button is located at the bottom right of the modal. Below the modal, the 'Samples to be collected' section shows a table with one entry. The table has columns for 'Ft', 'Location', 'Specimen Source', 'Special Instruction', 'Patient ID', 'Patient name', 'Test date', 'Priority', 'List of test to be done', 'Specimen Type', and 'St'. The entry shows 'TTSH WARD 03B', 'Vein', 'S57TEST8G', 'NEHR SIT LAB IP2', '03/03/2021 12:03:00', 'Routine', 'Full Blood Count (FBC)', and 'Blood'. The page footer indicates 'Showing 1 to 1 of 1 entries 1 row selected' and includes 'Previous', '1', and 'Next' navigation buttons.

Location: TTSH CENTRE FOR GERIA
S57TEST8G

Terminal: None

The patient record is currently locked by
User: Thum Wei Wah
Collection Place: TTSH WARD 03B
Terminal: TTSH_B_ZQ520_IP224

Back

Samples to be collected

Show 25 entries

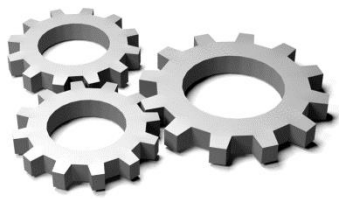
Ft	Location	Specimen Source	Special Instruction	Patient ID	Patient name	Test date	Priority	List of test to be done	Specimen Type	St
1	TTSH WARD 03B	Vein		S57TEST8G	NEHR SIT LAB IP2	03/03/2021 12:03:00	Routine	Full Blood Count (FBC)	Blood	Pe to

Showing 1 to 1 of 1 entries 1 row selected

Previous 1 Next

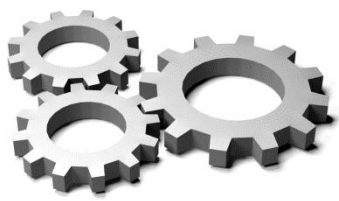
LIVE DEMO





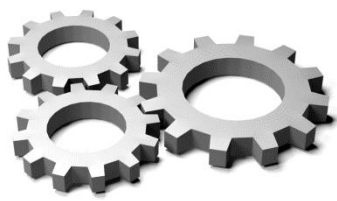
What you have learned

Topics	What you had learned
Accessing and Login to ECM	<p>(1) How to Login ECM.</p> <p>(2) How to launch ECM from user PC.</p> <p>Note: Only NHG AD ID account can be used to login to ECM</p>
Reaching ECM Home Page/Electronic Worksheet	<p>(1) User role access</p> <ul style="list-style-type: none">- Perform sample collection and order search <p>(2) Step by Step guide to use Electronic Worksheet</p> <p>(3) The type of specimen/test that can be collected in ECM</p> <ul style="list-style-type: none">- Blood, stools, swabs can be collected in ECM- Pathology test are not collected in ECM- For add test → to use Epic to print add test form <p>(4) The important information that is available in Electronic Worksheet Screen (Priority, Fasting, Precautionary Measures, Special Instruction, Notes, Missing Specimen Prompt)</p> <p>(5) Select an order of the patient to be collected and click on the Collect button and perform full collection</p>



What you have learned

Topics	What you had learned
Performing Sample Collection	<ul style="list-style-type: none">(1) Perform patient identification for inpatient(2) Plain/SID and collection form (for GXM and other BTS test) will be printed(3) Tube identification by scanning SID label after the sample is collected(4) Click Return to main page to complete the collection.
Other scenario for Sample Collection	<ul style="list-style-type: none">(1) An incomplete panel/profile test(2) Aborting collection as patient specimen cannot be collected(3) Perform a partial collection of order with the following functionality<ul style="list-style-type: none">a. Re-print SID labelsb. Tube identification after sample collectionc. Patient incorrectly identified, incorrect tube identification
Performing order search	<p>Perform order search for the following functionalities:</p> <ul style="list-style-type: none">a. Patient Status and procedures order historyb. Troubleshooting on any incident



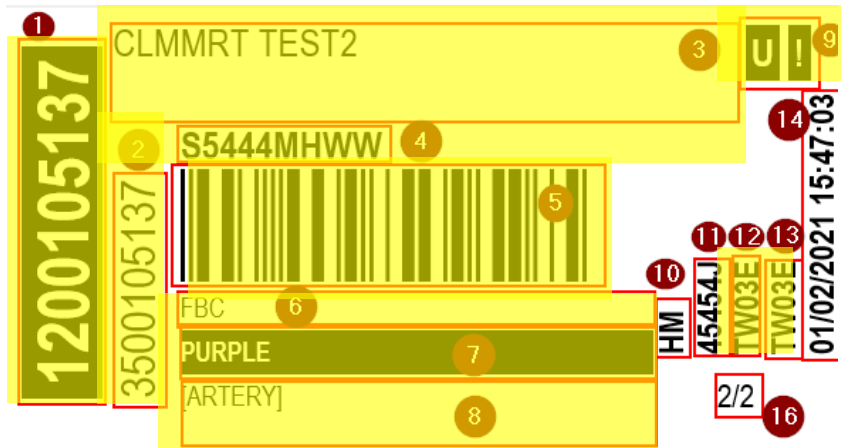
Troubleshooting Guide

Incident	What to do
Unable to login to ECM	<ul style="list-style-type: none">➤ Check that user entered NHG ADID username and password➤ Check that user can login to PC with the same NHG ADID username and password➤ If user is unable to login to PC, contact ITD-HELP 1800-483-435 to unlock the account
Unable to locate the order in ECM	<ul style="list-style-type: none">➤ Specimen is not due for collection within 24hrs➤ Order is to be collected using Epic's platform➤ Wrong patient is selected
Unable to locate labels/collection form	<ul style="list-style-type: none">➤ Check that the correct terminal is selected➤ Perform an order search to reprint the labels/collection form
Printer is faulty	<ul style="list-style-type: none">➤ Perform a check and ensure that printer is switched on, contact ITD-HELP 1800-483-4357 if the printer is faulty.

Q&A Session

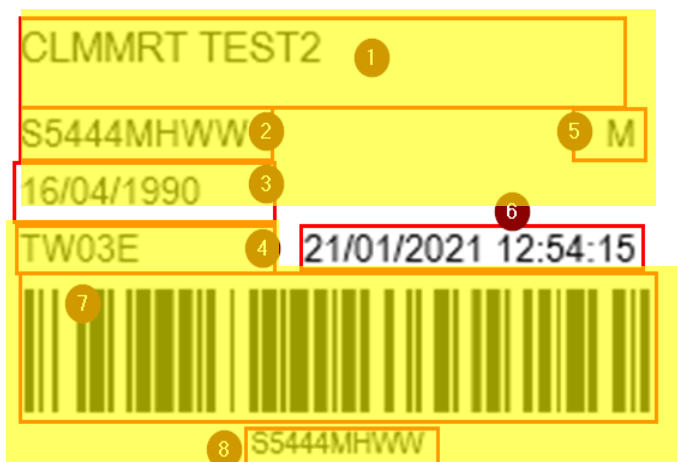


SID labels



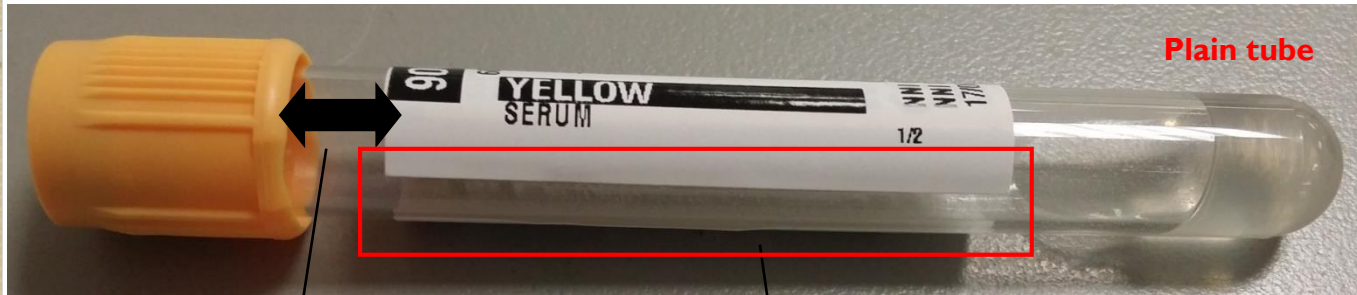
No	Description	Content
1.	Accession Number	Accession Number
2.	SID Number	SID number
3.	Patient Name	Patient Name
4.	Patient NRIC	Patient NRIC
5.	SID Bar Code	Barcode for SID number
6.	Test Code	Test code
7.	Container	Will not show if the ordered test don't have container.
8.	Specimen Type	Specimen Type or Specimen Source
9.	Priority	"U" : Urgent Status "!" : Fasting Status
10.	Test Subcategory	Display subcategory of the test
11.	Doctor Code	Display doctor code
12.	Collection Place	Display collection Place
13.	Order place	Display order place
14.	Print time	Date time form is printed
15.	Pages	Total number of labels to be printed

Plain labels



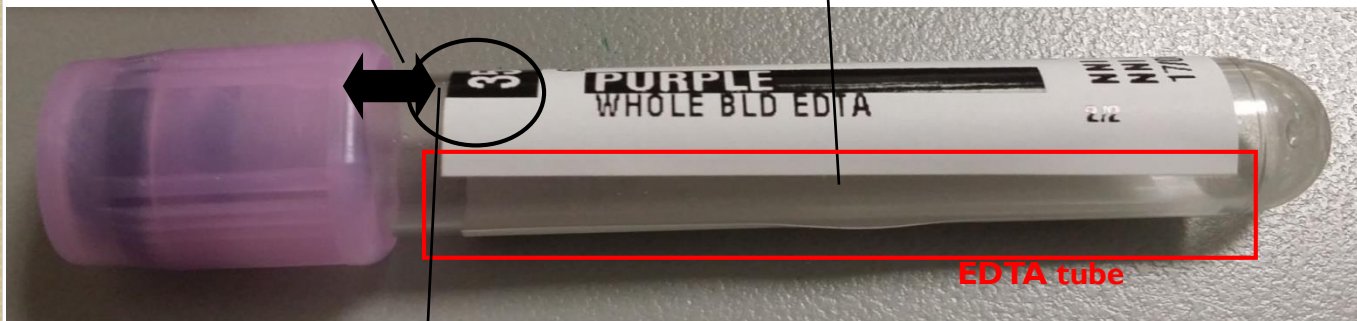
No	Description	Content
1.	Patient Name	Patient Name
2.	Patient ID	Patient NRIC
3.	Date of Birth	Date of Birth (DD/MM/YYYY)
4.	Collection Place	Collection place Ward/Clinic location
5.	Gender	Display: "F", "M", "O" or "U" F: Female M: Male O: Other U: Unknown
6.	Print Date	Date time form is printed DD/MM/YYYY HH:MM:SS
7.	Barcode of Patient ID	Barcode of the Patient ID
8.	Patient ID	Patient NRIC

Correct way and orientation to label specimens



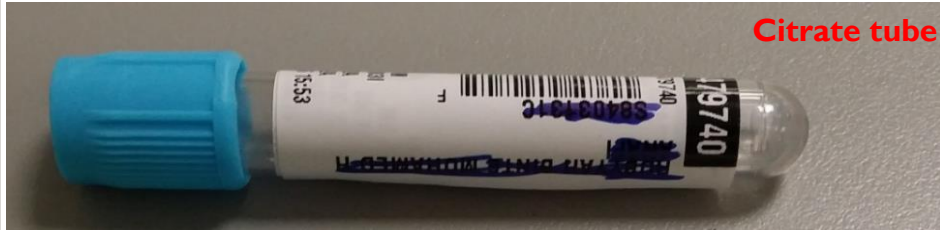
Slight gap between cap and tube label

Gap for laboratory usage



Accession number to face cap

Incorrect way to label specimens



Citrate tube

Upside down labeling
(incorrect orientation)



Lithium heparin tube

Slanted
labeling

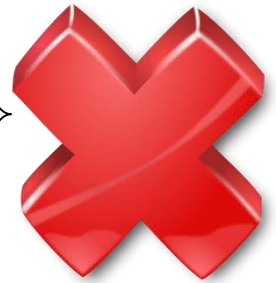


Plain tube



EDTA tube

Specimen label
too low



Incorrect way to label specimens



Incorrect label on tube

Train-The-Trainer (TTT) session Electronic Collection Module (ECM)

Equipment in Clinical Area

Equipment in Clinical Areas



powered COW
(pCOW)

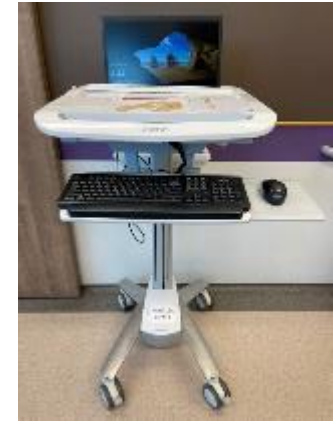
- ✓ Specimen printer*
- ✓ Barcode scanner*

*Only available on 1/3 of pCOW in respective clinical area



Printer On Wheel
(POW)

- ✓ Specimen printer
- ✓ Barcode scanner



Computer On Wheel
(COW)

- × Specimen printer
- × Barcode scanner

What's New?

What's New?

Current Aurora (CCOE)	New ECM
Printing of label at Nursing Counter	Printing of label at bedside (More label printers available)
No patient verification in system	Patient verification by scanning patient's ID at bedside is mandatory
No visual aid for number and colour of tubes to be collected	Clearly states the number and colour of tubes to be collected
Blood tube collection sequence is not reflected in system	Blood tube collection sequence is clearly shown at collection screen
Lab have to re-label specimens before introducing into analyzer	Instrument ready labels are directly printed and labelled during the collection process

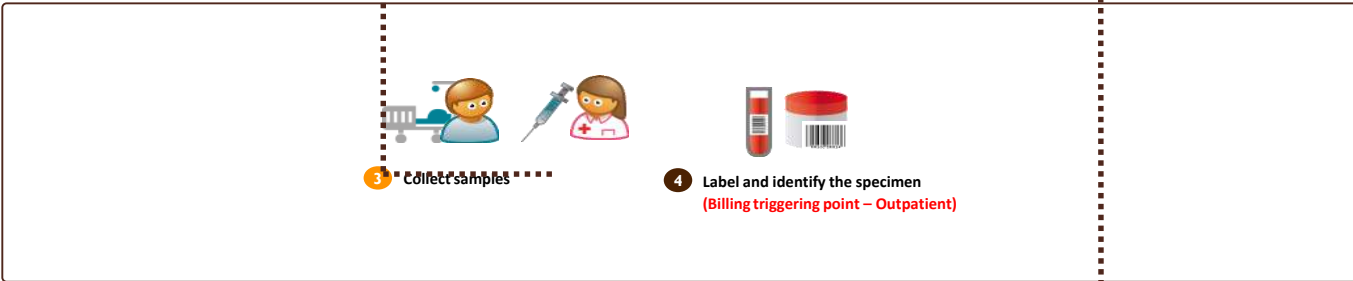
Workflow

End to End Work Flow

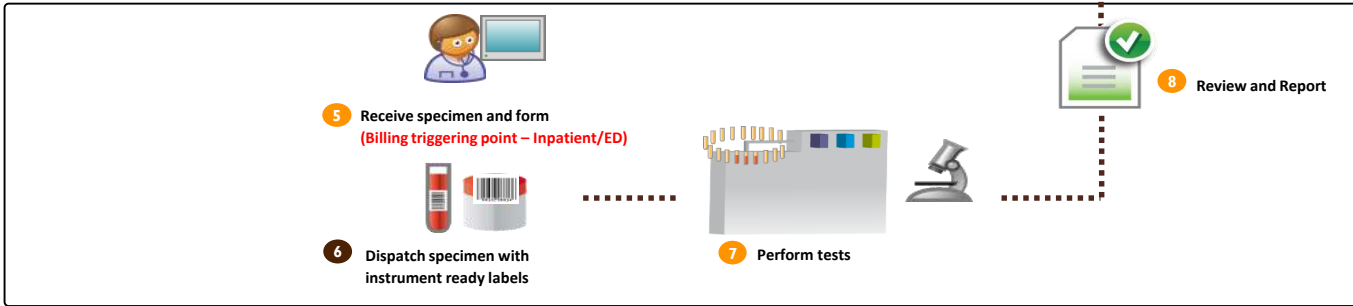
Epic



ECM



NexLabs®



Orders in EPIC (view only)

Orders ? ↗ ✕

Active | Signed & Held | Home Meds | Manage Labs | Order History

View by: Phase of Care ↻

No phase of care

Lab

Full Blood Count Once, Wed 17/2/21 at 09:58, For 1 occurrence New collection	<input type="button" value="Modify"/> <input type="button" value="Discontinue"/>
Renal Panel - Na, K, Cre, Ure Once, Wed 17/2/21 at 10:00, For 1 occurrence New collection	<input type="button" value="Modify"/> <input type="button" value="Discontinue"/>
Urine Formed Element (Ufeme) Once, Wed 17/2/21 at 10:00, For 1 occurrence New collection	<input type="button" value="Modify"/> <input type="button" value="Discontinue"/>

Results appearing in EPIC

Results Review Last Refresh: 17/2/2021 09:59 Time Mark Back Forward View Hide Tree More

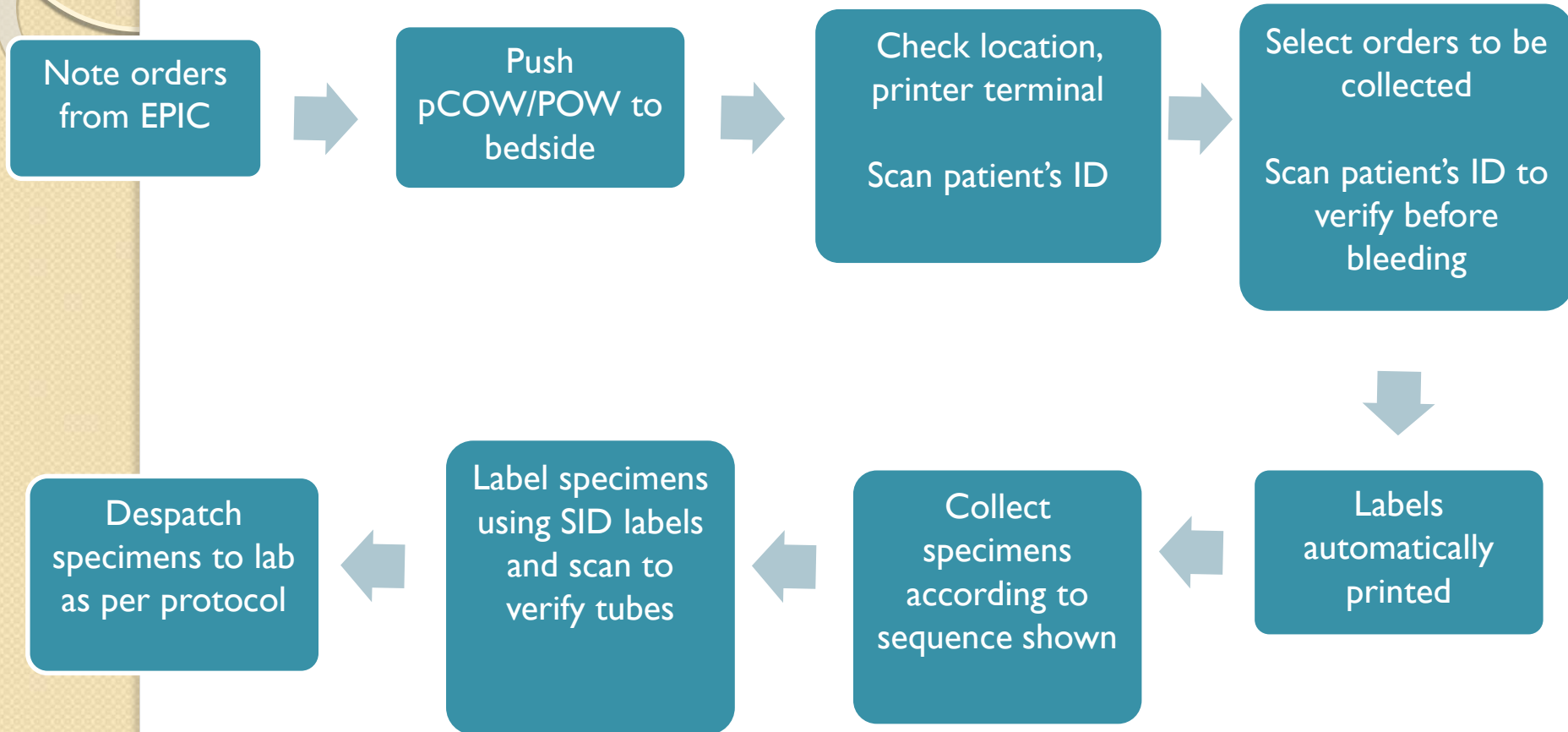
Search: Hide data prior to: 17/2/2021

ALL TOPICS

- [-] Results
 - [-] LABORATORY
 - [+] MICROBIOLOGY
 - [-] OTHERS
 - ... C. DIFFICILE TOXIN (TTSH)
 - ... CPE/CPO GENOTYPING (TTSH)
 - ... CRE (TTSH)
 - ... Germ Comment (TTSH)

	1	2	3
	18/1/2021 15:53	18/9/2020 09:16	1/9/2020 08:57
BACTERIOLOGY			
URINE CULTURE			
CLOSTRIDIUM DIFFIC...			
NGEMR LAB BLOOD AE...	!		
OTHERS			
C. DIFFICILE TOXIN...			Negative *
CPE/CPO GENOTYPING...		IMP *	
CRE (TTSH)		NOTE! Carbapen... *	
Germ Comment (TTSH)	Isolated from ... *		

Workflow



Trainers' roles and responsibilities

Your Roles and Responsibilities

- ECM Trainer
- To complete ECM training for your department
- Via playground

Decentralised training logistics

- Logistics provided:
 - Specimen labels for printing
 - Dummy patients and orders
 - ECM URL for training

 - KIV printing – setup might be delayed
 - If unable to print, to teach system and correct workflow.
 - But to proceed, got to take a snapshot with phone to scan from phone.

THANK YOU