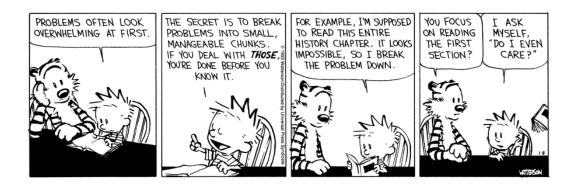
## CERNER TRAINING

# GENERAL LAB GUIDE



THIS GUIDE IS AN INTRODUCTION TO CERNER MILLENNIUM. IT'S PURPOSE IS TO INTRODUCE CERNER, AND IT'S BASIC APPLICATIONS, TO NEW USERS. THROUGHOUT THE GUIDE YOU WILL FIND HINTS, TIPS AND WARNINGS WHICH WILL HELP YOU AVOID OR RECOGNIZE SOME ISSUES YOU MAY RUN INTO AS YOU LEARN THE SYSTEM.



IF YOU'VE NEVER USED CERNER BEFORE, IT MAY SEEM COMPLICATED. AS YOU BECOME MORE FAMILIAR WITH IT, YOU'LL SEE HOW CERNER ALLOWS YOU TO QUICKLY AND SMOOTHLY TRANSITION BETWEEN TASKS, MONITOR YOUR WORKLOAD, AND TROUBLESHOOT SPECIMEN ISSUES.

## **Contents**

# Part I Cerner App-Bar

Introduction 9

Basic Settings 10

Adding Applications 11

Sorting the Applications 12

Grouping the Applications 14

Which apps do I need? 16

Required for everyone 16

Helpful Applications 17

Microbiology Applications 17

Blood Bank Applications 17

Other Applications 20

## Part II Accession Numbers

#### Introduction 22

Container Identifiers 23

Advantages 23

Downtime Accessions 23

TIPS AND TRICKS 24

Container ID 24

Entering Accession Numbers 25

# Part III Department Order Entry

Customizing Department Order Entry 27			
Define Default Values 27			
Default Search Settings 28			
Temporary Search Setting 28			
Patient Lookup 29			
Using a Unique Patient Identifier 29			
Using the Encounter Search Window 30			
Troubleshooting Tips 32			
Placing New Orders 34			
Updating Order Information 35			
Updating the order information 36			
Scratch Pad 37			
Modifying orders in the Scratch-Pad 37			
Submitting the orders 38			
Notes on Duplicate Checking 39			
When orders are placed. 39			
When orders are Dispatched 39			
When orders are Logged-In 39			
Example 40			
Accession Add-on 41			
Adding on orders 42			
To Override or Not to Override 42			
Not Overriding 43			
Overriding 43			
Tips on Searching for Orderables 44			
Search Tips 44			
Additional Information 45			
Those Other Functions 45			
Submitting Orders 45			

# Part IV Specimen Log-in

Introduction 47

GETTING STARTED 48

Setting Location 48

Setting Default Printers 49

Log-in By Accession Number 51

Troubleshooting 53

I've Logged a Sample Into the Wrong Location 53

# Part V Container Inquiry

Introduction 55

Inquiring About Containers 56

Container List 56

Event List 57

Routing 58

Using Container Inquiry for Troubleshooting 59

Log-in Location 59

Finding Where Samples Need to Go 60

## Part VI Order Result Viewer

Introduction 62

GETTING STARTED 63

FINDING ORDERS 64

Searching by Patient 65

Searching by Accession Number 66

#### VIEWING ORDERS 67

Sorting the list 67

Orderable Status 68

Viewing Results 68

Flowsheet Mode 69

View Comments 70

Branching 71

Canceling Orders 72

Troubleshooting 75

Unable to Search by Accession Number 75

Branching Applications Won't Open. 75

# Part VII Accession Result Entry

Introduction 77

Canceling Orders 78

# Part VIII Pending Inquiry

Canceling 80

Canceling from Pending Inquiry 81

# Part IX Transfer Specimen

## Part X Comments

Entering Comments 88

## Part XI Downtime Procedure

Introduction 90

# Part XII Appendix

SUNQUEST TO CERNER: APPLICATION EQUIVALENTS 92

SUNQUEST TO CERNER: TERMINOLOGY 93

Test Section 93

ACRONYMS 94

GLOSSARY 95

INDEX 101

# PART I

# CERNER APP-BAR

## Introduction

The Cerner App-Bar is used to quickly access Millennium Applications. Each user can set up their App-Bar differently based on their responsibilities with in the laboratory.

This procedure will guide new users through the set up process and demonstrate how the App-Bar is used. As you become more familiar with Cerner and find the need to add additional applications, refer back to this guide.

Like snowflakes, each App-bar is unique.

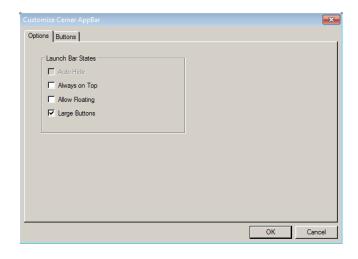
## Basic Settings

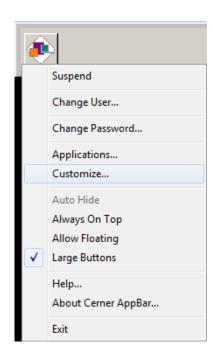
Launch the App-Bar.



Click the menu button to open the App-Bar menu and select "Customize..."

THE "CUSTOMIZE CERNER APP-BAR" window will open with a few options.



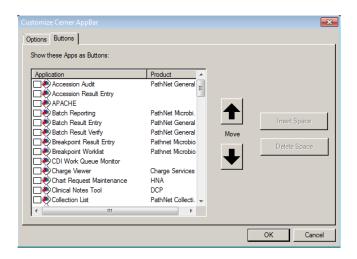


BRIEF DESCRIPTION of these options:

- ALWAYS ON TOP: will keep the App-Bar above other windows.
- ALLOW FLOATING: allows the App-Bar to float anywhere on the screen.
- LARGE BUTTONS: increases the size of the App-Bar Buttons.

# **Adding Applications**

 ${\it Click}$  the **Buttons** tab from the Customize Cerner App-Bar window.



#### SELECT THE FOLLOWING applications:

Accession Result Entry (ARE)

**Container Inquiry** 

Department Order Entry (DOE)

**Label Reprint** 

**Modify Collections** 

Order Result Viewer (ORV)

Pending Inquiry

Specimen Log-In

Transfer Specimen

Click OK when finished.

THE APP-BAR should now look like this:



#### Sorting the Applications

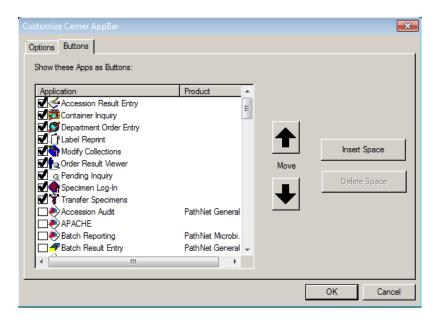
It may become useful to organize the applications within the App-Bar. This can be done by rearranging the buttons and the addition of -Spaces-

THE FOLLOWING STEPS will walk you through the process of organizing the applications.

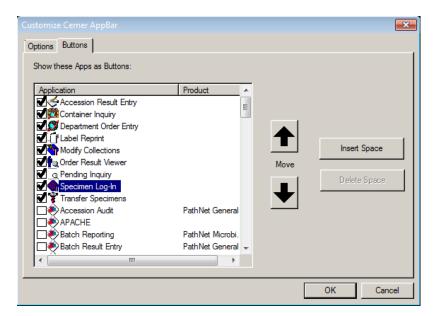
Click the menu button to open the App-Bar menu.

Select "Customize..."

Click the "Buttons" tab.

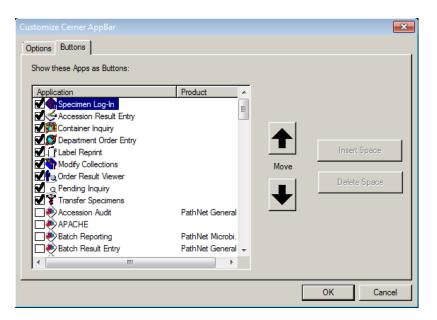


Select Specimen Log-in from the list of applications.



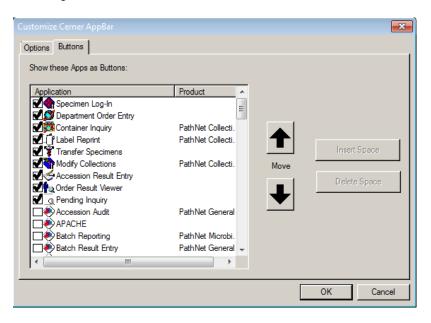
info: The applications selected from the previous section have moved to the top.

Using the arrows and when move Specimen Log-in to the top of the list.



info: As you move the applications on this list, their position will also move on the App-Bar

Repeat the previous step until the applications are in the the following order:



THE APP-BAR will now look like this:



#### Grouping the Applications

WE CAN GROUP certain applications together by adding a -(Space)between them.

Insert Space Select ARE and Click



**Note:** There is now a small space between "Modify Collections" and "Accession Result Entry"

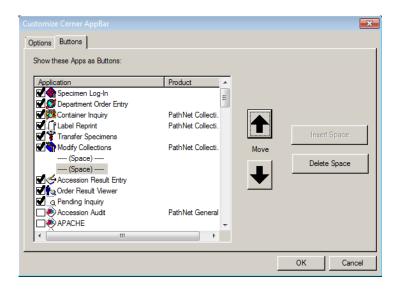
TO MAKE THE GROUPINGS more prominent, we can add an additional -(Space)- .

Select "Order Result Viewer" and Click



info: ARE can't be selected because Cerner won't allow you to add a -(Space) - next to another -(Space) - .

Select the new -(Space) - and move it so it's right below the original -(Space)-



THE APPLICATIONS within the App-Bar are now organized. As more applications are added, you may find the need to re-organize them in a configuration that better fits your work-flow.



## Which apps do I need?

Great question! This section will cover some of the more common apps, and who will need them.

Keep in mind that the job responsibilities vary between labs, and you may find that you need some applications which haven't been recommended.

#### Required for everyone



## Accession Result Entry (ARE)

The Cerner Application used to enter perform and verify general laboratory results.



## Container Inquiry

The Cerner Application used to view the details of accession containers. This is, by far, the most useful application within Cerner. It will be your best friend.



#### DEPARTMENT ORDER ENTRY (DOE)

The Cerner Application used to place orders on in-house patients. It can also be used to add orders onto existing accession numbers.



## LABEL REPRINT

The Cerner Application used to reprint accession labels to any label printer.



#### MODIFY COLLECTIONS

The application used to modify the collection date, time, or method. If results have been.



#### CRUER RESULT VIEWER (ORV)

The Cerner Application used to view the orders on a patient or accession number.

## PENDING INQUIRY

The Cerner Application used to view pending orders, In the event an instrument goes down, this application can be used to transfer orders to another site.

## SPECIMEN LOG-IN

The Cerner Application used to "Log-in" samples. It can also be used to log-in entire transfer lists from other sites.

## TRANSFER SPECIMENS

The Cerner Application used to "Transfer" samples from the collecting site to the performing laboratory.

#### Helpful Applications

## COLLECTIONS INQUIRY

The Cerner Application used to view Collection Lists, Transfer Lists, and all pending orders for a patient. This application is helpful in tracking down samples that have been transfered between sites, and helping nurses find "missing" labels.

#### COLLECTIONS LIST

The Cerner Application used to view "Collections Lists." Future orders will appear here before they have been assigned accession numbers.1

1 info: This application is useful for laboratories which draw their patients.

#### Microbiology Applications



The Cerner Application used to result microbiology orders.<sup>2</sup>

<sup>2</sup> Not to be confused with ARE



The Cerner Application reprint microbiology media labels.

#### **Blood Bank Applications**



A Blood Bank application that verifies the label affixed to blood bag after modification or pooling. It does this by comparing the details on the label with the values stored in the system.

## Modify Crossmatch

A Blood Bank application that reinstates a completed crossmatch and updates the crossmatch expiration date and time for a product.

## Modify Products

A Blood Bank application to modify or pool products. New products can be created from existing products in inventory, split products, add product attributes, convert autologous and directed products to allogeneic products, and create single pooled products from multiple component products.

## ORDER INQUIRY

A Blood Bank application to display detailed information about product orders. Order Inquiry reports can be generated to print details about the orders displayed.

## PRODUCT ORDERS

A Blood Bank application to place on-demand orderes for laboratory and blood bank procedures directly on blood bank products, without an association to a specific patient.

## PATIENT PRODUCT INQUIRY

A Blood Bank application to view a list of products currently associated with a patient. Antiboidies, Blood Bank comments, and transfusion requirements can also be viewed.

## PRODUCT HISTORY REVIEW

A Blood Bank application used to display a detailed overview of current product activity.

## QUALITY CONTROL RESULT ENTRY

A Blood Bank application to create and maintain quality control (QC) groups and to enter results for selected QC groups.

## **QC** INQUIRY

A Blood Bank application used by supervisory personnel to review Blood Bank quality control results entered in Quality Control Result Entry.

## QUARANTINE PRODUCTS

A Blood Bank application used to add or remove the "Quarantined" state on blood bank products.



## RECEIVE PRODUCTS

A Blood Bank application used to receive products into the Blood Bank inventory. It can also print a report of products received as well as component tags and pilot labels.



## CORRECT INVENTORY

A Blood Bank application to modify existing product information. This application can unlock products, change product demographic information, change final disposition information, update emergency dispense information, update special testing information and add to pooled product.



## ASSIGN PRODUCTS

A Blood Bank application to dispense and assign products to patients for future use. It can be used to dispense products to patients in an emergency situation.



#### FINAL DISPOSITION

A Blood Bank application used to perform three different updates to blood products. Transfuse, Dispose and Destroy



## GENERATE TAGS AND LABELS

A Blood Bank application to create tags and labels on-demand.



#### INVENTORY SEARCH

A Blood Bank application used to search the Blood Bank Inventory for specific products.



## RELEASE PRODUCTS

A Blood Bank application used to release products from an active Crossmatched or assigned state.



## REPORT SELECTION

A Blood Bank application to print blood bank reports that are used to assist in inventory management and supervisory review of patientrelated events.



## BLOOD BANK RESULT ENTRY

A Blood Bank application used to enter and correct results for blood bank procedures ordered on patients or blood bank products.

#### Other Applications



# OSM REQUISITION ORDER ENTRY

The Cerner Application used to place orders on outreach patients.



# ABEL PRE-PRINT

The Cerner Application used to generate downtime labels. These are labels with accession numbers of yy-400-xxxxxx and above.

# PART II

# ACCESSION NUMBERS

## Introduction

In Cerner, an accession number is the unique number assigned to a set of orders with the same sample type<sup>3</sup>, and collection time.

This means, when the emergency department sends a "Rainbow" all the orders will for those tubes will be on a single accession number

<sup>3</sup> e. g. blood, urine, body fluid, etc...

ACCESSION NUMBERS are made up of four parts:

Julian Year: 2-digit number representing the current year.

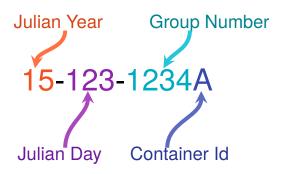
**Julian Day:** 3-digit number representing the day of the year the sample was, or will be, collected. (001-365)<sup>4</sup>

**Group Number:** A unique number to differentiate accession numbers

**container identifier:** A *letter* used to differentiate containers attached to an accession number

Samples collected around midnight will often have a different Julian date than collect date.

<sup>4</sup>info: It's alright if they don't match.



THE GROUP NUMBER will reset at midnight. Since the date is build into the accession number, no two collections will ever have the same accession numbern

GENERAL LAB GUIDE INTRODUCTION 23

#### Container Identifiers

The container identifier gives Cerner the ability to group *every* container from a collection onto a single accession number, while still allowing the instruments to differentiate containers.

#### EXAMPLE:

An order is placed for a **CBC**, **Basic Panel**, **Lithium** and a **Troponin**. Cerner will create one accession number with three containers.

- 15-123-000001A CBC
- 15-123-000001B Basic Panel, Troponin(Li-Heparin)
- 15-123-000001C Lithium(SST)

When container "B," is loaded on to the instrument, the only orders it will see are the **Basic Panel** and **Troponin**.

▲ IMPORTANT: CHECK THAT THE CORRECT LABEL IS PLACED ON EACH OF THE CONTAINERS. IF THE SST LABEL IS PLACED ON THE LI-HEPARIN TUBE, THE INSTRUMENTS WILL RUN A LITHIUM ON THE LI-HEPARIN CONTAINER.

#### Advantages

By assigning one accession number to an entire collection, specimen tracking becomes much easier.

With Container Inquiry, it's possible to see every container on an accession number, and each of the tests associated with those containers.

Sites with automation lines will be able to load extra containers onto the line. Those containers will be spun and immediately filed.

#### Downtime Accessions

#### **AWARNING:** WORK IN PROGRESS

In the event that Cerner is unable to generate accession number (e. g. downtimes,) downtime accession numbers will need to be manually assigned using DOE.<sup>5</sup>

Pre-printed downtime labels have accession numbers similar to normal accession number. The main difference is that the julian day is replaced with a number greater than 366.<sup>6</sup>

EXAMPLE OF A downtime accession number:

15-400-000001

<sup>5</sup> Refer to: **DOWNTIME PROCEDURE** pg. 89

<sup>6</sup> info: We can safely use these numbers because normal accession numbers can't go that high. If they do, then it's been a long year.

## Tips and Tricks

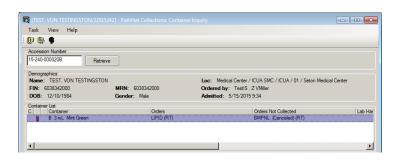
While on the surface, entering accession numbers in Cerner applications is fairly simple, this section will go over some of the details.

#### Container ID

In most Applications, Cerner will ignore the container identifier<sup>7</sup>. There are two exceptions *i. e. Container Inquiry and Specimen Log-in*.

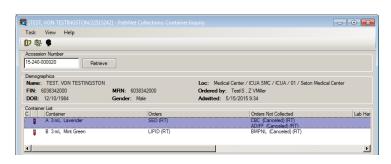
<sup>7</sup> This means Cerner will pull up information on the entire order

#### WITH A container identifier



info: Only the entered container appears.

#### WITHOUT A container identifier



**info**: Both containers on the accession number appear.

▲ IMPORTANT: SPECIMEN LOG-IN ALSO BEHAVES THIS WAY. MEANING, IF THE ACCESSION NUMBER IS ENTERED WITHOUT THE CONTAINER IDENTIFIER IT'S POSSIBLE TO LOG-IN CONTAINERS WHICH HAVE NOT BEEN SENT TO THE LAB.

...And that is why you always use the Barcode Scanners.

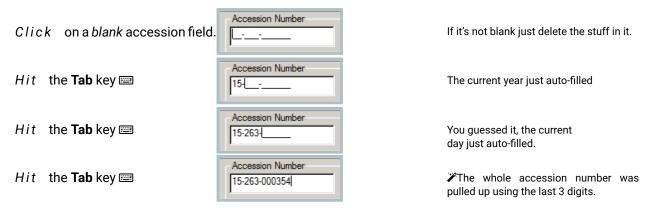
GENERAL LAB GUIDE TIPS AND TRICKS 25

#### **Entering Accession Numbers**

If you haven't noticed, the accession numbers are a bit long. Luckily we have some shortcuts.

WHEN ENTERING AN ACCN we can auto-fill most of the information. This will allow us to quickly enter accession numbers.

#### Fast Entry



#### Faster Entry

IF THE ACCESSION NUMBER has todays date, you can actually skip the first two tabs.

Clic	k on a blank accession field.	Accession Number	If it's not blank just delete the stuff in it.
Hit	the <b>Enter</b> key	Accession Number	The current year and day just auto-filled Pretty nifty.
Hit	the <b>Tab</b> key	Accession Number	You guessed it, the current day just auto-filled.
Hit	the <b>Tab</b> key 🔤	Accession Number 15-263-000354	

## PART III

# DEPARTMENT ORDER ENTRY

## Customizing Department Order Entry

There are a few options within DOE which should be changed based on your location or workflow. Most of the options in this section will only need to be changed once.

#### Define Default Values

Click TASK from the the menu bar.

#### Select Define Default Values

HERE IS A LIST of options that can be set.

**CURSOR POSITION:** The starting position of the cursor when DOE is first opened. PATIENT IDENTIFIER FIELD is the recommended setting.

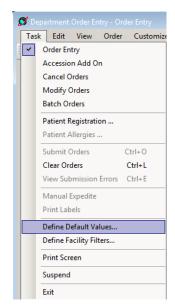
**CLIENT:** The site where the patient encounter is located. This option should be set to **NONE**. Setting it to your location will limit your ability to locate patients.

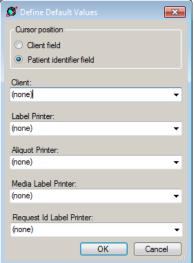
**LABEL PRINTER:** The location where labels on new orders will print. It's recommended to set this to the label printer used most often.

**ALIQUOT PRINTER:** The Label Printer used to print Aliquot Labels, it should be set to the same printer as Label Printer.

**MEDIA LABEL PRINTER:** The label printer used to print Microbiology media labels. It should be set to the nearest Microbiology media label printer.

REQUEST ID LABEL PRINTER: This is a mystery.





#### Default Search Settings

By default, DOE searches for patients by Name. This can be changed to search by Medical Record Number, Social Security Number, or by Financial Number.

Click View from the the menu bar.

Hover over PATIENT and selected the preferred search method.<sup>8</sup>



8 info: This option is STICKY, meaning it will be the default search method every time DOE is opened.

After changing this setting, the title of the PATIENT IDENTIFIER field will update accordingly.

#### **Temporary Search Setting**

In cases where limited patient information is available, it's possible to temporarily change the patient identifier used to search.

Right Click on the PATIENT IDENTIFIER field

Select the new search option.9



<sup>9</sup> info: This option is SEMI-STICKY, meaning it will stay chosen as long as DOE is open.

However, any new DOE window will revert back to the default settings.

## Patient Lookup

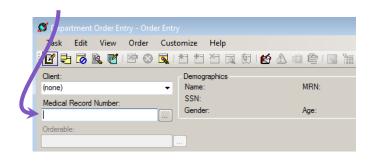
From Department Order Entry there are two ways to search for a patient

The quickest way to find a patient is using a UNIQUE PATIENT IDENTIFIER such as a Medical Record Number (MRN), or Financial Number (FIN).

If that information is unavailable the ENCOUNTER SEARCH window can be used to find patients using information such as Partial name, date of birth *etc...* 

#### Using a Unique Patient Identifier

Enter the Patient Identifier in the Patient Identifier field. 10



<sup>10</sup> Make sure that the PATIENT IDENTIFIER entered matches the description above the text box.

11 Hotkey: Hitting ENTER also works

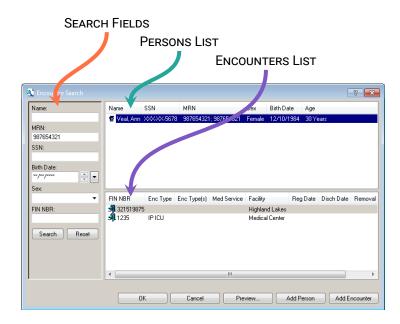
IF THE PATIENT HAS only one encounter, DOE will use that encounter. The demographics in DOE will update with the selected patient.

However, if there are multiple encounters, or DOE could not find the patient, then the "Encounter Search" window will appear.

Click to pull up the patient. 11

#### Using the Encounter Search Window

Ideally, patients will be found using a unique identifier (i.e. MRN, FIN, or SSN). This section will discuss the process of searching for patients in situations where that information is unavailable or when multiple Encounters exist for a patient.



THE ENCOUNTER SEARCH WINDOW is divided into three sections:

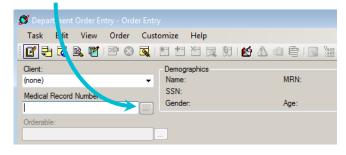
**SEARCH FIELDS:** This is where the search criteria is entered.

**PERSONS LIST:** A list of persons matching the search criteria.

**ENCOUNTERS LIST:** A list of encounters for the Person selected in the "Persons List."

IF ENCOUNTER SEARCH IS NOT OPEN from the previous section: 12

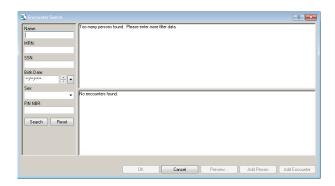




 $<sup>^{\</sup>rm 12}$  Refer to: Using a Unique Patient Identifier  $\it PG.~29$ 

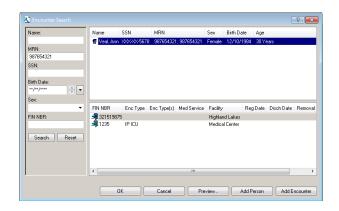
<sup>13</sup> Hotkey: The ENTER will also work.

Enter any known information into the search fields 14



Click Search to search.

Select the appropriate patient from the Persons List.



Select the appropriate encounter from the Encounters List.

Click OK



14 AIMPORTANT: Be as specific as possible. If the search is too vague Cerner will simply display "Too many persons found. Please enter more filter data."

F TROUBLESHOOTING: If any of the search fields are populated when the window opens, but the Persons List says "No Persons Found" Refer to: TROUBLESHOOTING TIPS pg. 32

These are the patients which match the search criteria.

These are the encounters for the, currently selected, patient.

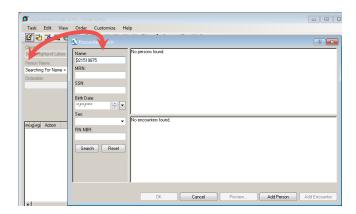
DOE will update with the patient's demographics, and orders can now be placed.

#### Troubleshooting Tips

If you're having trouble finding a patient, don't fret. Here are some things to look for when the "Encounter Search" window says: "No persons found" but the patient *is* in they system.

#### Check the search fields

IN THE EXAMPLE BELOW, the "Patient Identifier" field was set to search for a patient name, however the user entered a FIN.

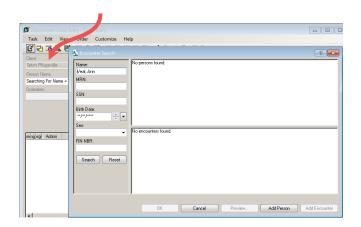


The "Encounter Search" window will say "No persons found."

**SOLUTION:** This is easily fixed by typing the FIN into the FIN NBR field, and deleted the contents of the "Name" field.

#### Check the client field

THE PATIENT BELOW has never been to Pflugerville. Cerner cannot find the patient, because she does not have a Pflugerville encounter.



The ENCOUNTER SEARCH window will say "No persons found."

See the next page for the solution

**SOLUTION:** In most cases, *Clicking* Search should bring up the patient. If it doesn't, try this:

 ${\it Close}$  the Encounter Search Window

Set the CLIENT field to (None)

Retry the search

## Placing New Orders

SEARCH FOR THE patient using a unique patient identifier, e.g. MRN, or FIN; or by using the "Encounter Search"

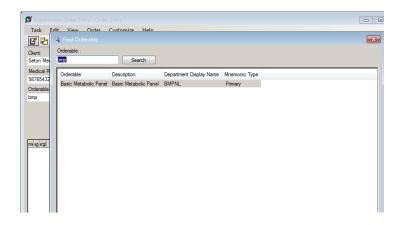


Enter the test to be ordered in the "Orderable Field" 15



<sup>15</sup> **info:** An Orderable is anything that can be ordered in the laboratory. It can be an individual assay (e. g. Glucose,) a panel (e. g. Basic Metabolic Panel,) or a care-set (e. g. Glucose Tolerance Test.)

Click the button to search.



**AWARNING:** There are cases where DOE will not present this window e.g. If you search for Thromboelastography tests using the keyword: "teg" DOE will load Tegretol.

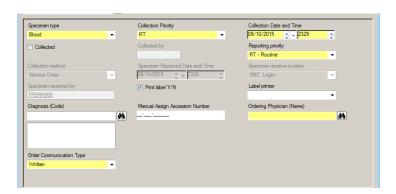
Select the appropriate test from the list of orderables. 16

16 See: 'Tips on Searching for Orderables' on page 44

OK Click

#### **Updating Order Information**

ONCE AN ORDERABLE has been selected, the order information needs to be defined.



Tip: Resize your window so there are three columns of text boxes (as shown.)

info: The fields in yellow are required. Orders cannot be placed until they have been filled in.

A DESCRIPTION of the options above.

SPECIMEN TYPE:: The type of sample e.g. Blood, Body Fluid, Urine etc...

COLLECTED CHECK BOX:: Has the sample been collected? If so, check this.

**COLLECTION METHOD:** : The method used to collect the sample, more applicable to urines and body fluids.

SPECIMEN RECEIVED BY:: The person who is "receiving" the sample. This will default to your user name.

**COLLECTION PRIORITY:** : The Setting priority of which the sample is to be collected. It can be Routine, Stat, Time Study etc .... If this order is for a future collection, this option determines when labels will print.

**COLLECTED By:** : The person who collected the sample.

SPECIMEN RECEIVE DATE AND TIME:: When was the sample brought to the lab. This defaults to now.

**PRINT LABEL::** Do you want a label to print after you place the order?

MANUAL ASSIGN ACCESSION NUMBER:: This is used for downtime, see the downtime procedure.

COLLECTION DATE AND TIME: The date and time the sample was collected, or the date and time it will be collected. It defaults to now.

**REPORTING PRIORITY::** The priority in which results need to be posted?????

SPECIMEN RECEIVE LOCATION:: The current location of the sample. In most cases this will be set to your current location, e.g. SMC Login

LABEL PRINTER:: The location where labels should print after placing the order.

ORDERING PHYSICIAN:: The Physician who ordered the test. This will usually default to the patients attending physician.

#### Updating the order information

Select the appropriate Specimen Type from the drop-down menu.

Check the COLLECTED check-box. 17

Select the Collection Priority<sup>18</sup>

Update the Specimen Received Date and Time In most cases this value does not need to be changed.

Check the PRINT LABEL Y/N check-box.

Update the Collection Date 19 and Time 20

Update the REPORTING PRIORITY

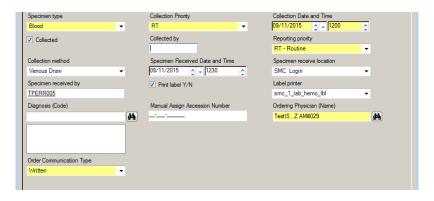
Check that the Specimen Receive Location is correct. This should be set to your current location.

Check that the LABEL PRINTER is correct. This should be set to the label printer closest to you.

Check that the ORDERING PHYSICIAN is correct.

A IMPORTANT: IF AN ATTENDING PHYSICIAN HAS BEEN SET FOR THE PA-TIENT, IT WILL AUTOMATICALLY POPULATE THE ORDERING PHYSICIAN FIELD. IN MOST CASES, THEY WILL BE THE SAME PHYSICIAN. HOWEVER, IF ANOTHER DOCTOR HAS PLACED THESE ORDERS IT IS IMPORTANT TO UPDATE THE OR-**DERING PHYSICIAN FIELD.** 

DOE SHOULD NOW look something like this:



IF THE INFORMATION is correct, the order can be added to the Scratch-Pad.

<sup>19</sup> Hotkey: Press T for "Today" 20 Hotkey: Press N for "Now"

<sup>&</sup>lt;sup>17</sup> This will enable the receiving options.

<sup>&</sup>lt;sup>18</sup> Note: COLLECTION PRIORITY is a SEMI-STICKY option, if you set it to "ST" it will stay that way until you change it, or the window is closed.

#### Scratch Pad

The Scratch-Pad is used to temporarily hold orderables before they are "Submitted.21" While in the Scratch-Pad, orderables can be modified or removed.

**A IMPORTANT:** If multiple tests are ordered, do not **Submit Orders** UNTIL THEY HAVE ALL BEEN ADDED TO THE SCRATCH-PAD.

SUBMITTING ORDERS INDIVIDUALLY WILL PUT THEM ON SEPARATE ACCES-SION NUMBERS AND CERNER WILL BE UNABLE TO PERFORM IT'S DUPLICATE CHECKING MAGIC.

Click the ADD TO SCRATCH-PAD icon  $\Box$  from the tool-bar<sup>22</sup>

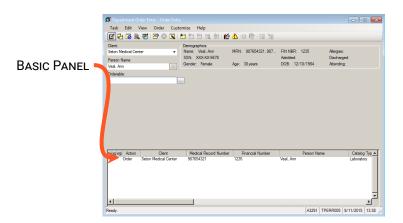


<sup>21</sup> "Submitting Orders" is another way of saying "Hey Cerner, these orders are good

to go." Cerner will perform duplicate checking and assign an accession num-

22 Hotkey: Ctrl+A will also add orders to the Scratch-Pad

THE TEST WILL be moved down to the Scratch-Pad, and DOE is ready to accept another test.



FOLLOW THE STEPS above for any additional tests that need to be ordered. 23

#### Modifying orders in the Scratch-Pad

TO MODIFY AN ORDER in the scratch-pad, simply double click on it. The order information will be brought back up to DOE and the information can be edited.

<sup>23</sup> info: The information entered for the the first order will be copied to each additional test (e.g. Collection date and time, Received date and time, etc...)

Click the New Order icon <sup>™</sup> when you're finished to put it back in the scratch-pad.

#### Submitting the orders

AFTER ALL OF THE TESTS have been added, the orders can be "Submitted". This will finalize the order, and generate an Accession Number.

meag argi	Action	Client	dical Record Numl	nancial Numb	Person Name	Catalog Type	Procedure	Accession	Submission Status	Start Date/Time
	Order	Seton Medical Cente	987654321	1235	Veal, Ann	Laboratory	Basic Metabolic Panel	Ordered	Ready	9/11/2015 14:16:00
	Order	Seton Medical Cente	987654321	1235	Veal, Ann	Laboratory	CBC with Diff	Ordered	Ready	9/11/2015 14:16:00

Click the SUBMIT ORDERS icon from the tool bar. 24

meag argi		Client	dical Record Numi			Catalog Type	Procedure	Accession	Submission Status	Start Date/Time
	Order	Seton Medical Cente	987654321	1235	Veal, Ann	Laboratory	Basic Metabolic Panel	15-254-000038	Submitted	9/11/2015 12:00:00
	Order	Seton Medical Cente	987654321	1235	Veal, Ann	Laboratory	CBC with Diff	15-254-000038	Submitted	9/11/2015 12:00:00

THE "SUBMISSION STATUS" should change from "Ready" to "Submitted," an Accession Number will be generated and the labels should print.

Notice that the SUBMISSION STATUS is READY. This means Cerner is waiting for the order to be "Submitted".

<sup>24</sup> Hotkey: Ctrl+O will also submit or-

# Notes on Duplicate Checking

▲ WARNING: THIS SECTION NEEDS WORK. IT DESCRIBES SOME COMPLI-CATED RULES AND CONCEPTS. ONE THING NOT TOUCHED UPON IS THAT DU-PLICATE CHECKING CAN HAPPEN AT THE ASSAY LEVEL, OR THE ORDERABLE LEVEL. THOSE BEHAVE DIFFERENTLY.

Cerner will check for, and correct, duplicate orders at three points before the sample gets to the laboratory. At each point, it will look for different types of duplication.

**AWARNING:** After the accession number has been assigned, duplicate checking is limited to orders within the accession number. The following rules work in most normal situation, however it does not apply to **Addons** or orders placed incorrectly.

#### When orders are placed.

When orders are "Submitted," Cerner will look back to ensure that we are not creating duplicate orders.<sup>25</sup> If a previous order exists for one you've placed in the Scratch-Pad it will need to be removed before continuing.<sup>26</sup>

#### When orders are Dispatched

Cerner will check for duplicates within the orders<sup>27</sup> on the Scratch-Pad. Any duplicates will be canceled immediately after being ordered. Similar checking also occurs for scheduled orders placed by the floors. It happens before the accession number is assigned and the order is *Dispatched*.

#### When orders are Logged-In

There are cases where two orderables have partial duplications. The Renal Function Panel is the best example of this.

<sup>&</sup>lt;sup>25</sup> The amount of time it will look back depends on the test it is checking.

<sup>&</sup>lt;sup>26</sup> This is checking for duplicates at the ORDERABLE level e. g. If two Basic Panels were ordered.

<sup>&</sup>lt;sup>27</sup> This is checking for duplicates at the Assay level e. g. If a Electrolytes Panel (or even just a Potassium) was ordered with a Basic Panel..

Most of the assays in a Renal Function Panel are also in a Comprehensive Metabolic Panel, Phosphorous being the one exception.

In these situations, when the sample is LOGGED-IN, Cerner will cancel the Renal Function Panel and order a Phosphorous.

#### Example

Here is an example of duplicate checking which demonstrates the last two situations.

An order was placed for a CMPNL, RENPNL, and LYTES

Collect Date	Accession	Order	Specimen	Priority	Status	Co	Su	Order Date	Order Personnel ID	0	Cancel Date	Cancel Perso	Cancel Reason C
9/26/2015 22:38	15-269-000065	CMPNL	Blood	RT - Routine	In-Lab			9/26/2015 2	Perry , Thomas J MLS				
9/26/2015 22:38	15-269-000065	RENPN	Blood	RT - Routine	Canceled			9/26/2015 2	Perry , Thomas J MLS		9/26/2015 22:31	SYSTEM	Lab Operations Cancel
9/26/2015 22:38	15-269-000065	PHOS	Blood	RT - Routine	In-Lab	(F)		9/26/2015 2	SYSTEM				
9/26/2015 22:37	15-269-000065	LYTES		RT - Routine	Canceled			9/26/2015 2	Perry , Thomas J MLS		9/26/2015 22:3	SYSTEM	System Cancel

WHEN THE ORDER was Dispatched<sup>28</sup> the Electrolytes Panel was canceled. Again, this happened because the Electrolytes is included in a Comprehensive Metabolic Panel.

28 at 22:37

WHEN THE SAMPLE was Logged-in<sup>29</sup> the Renal Function Panel was canceled and the Phosphorus was added-on.

29 at 22:38

THE END RESULT, a COMPREHENSIVE METABOLIC PANEL and PHOS-PHORUS, contains all the original assays without any duplication.

### Accession Add-on

There are certain situations in which orders need to be added on to an existing accession number (e.g. Glomerular Filtration Rate.) This is done in DOE through the ACCESSION ADD-ON screen.

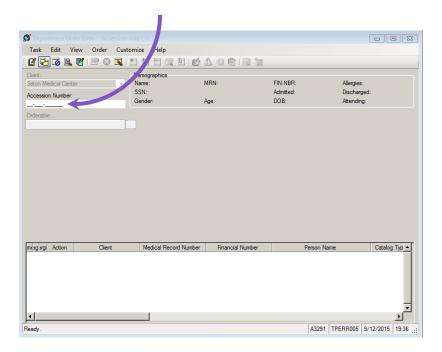
SWITCH TO ACCESSION ADD-ON mode:

Click the  $\rightleftharpoons$  icon from the toolbar.



#### DOE WILL UPDATE.

The main difference between this mode, and the normal ORDER ENTRY mode is that the PATIENT IDENTIFIER field gets replaced with an accession number field.



GENERAL LAB GUIDE ACCESSION ADD-ON 42

#### Adding on orders

Enter the Accession Number 30 into the accession number field. 31

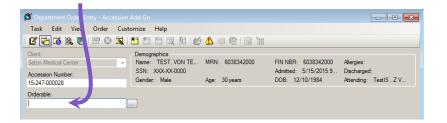


<sup>30</sup> The accession number of the sample the orders will be added to.

<sup>31</sup> **info:** Refer to: **Accession Numbers:** ENTERING ACCESSION NUMBERS PG. 25 For some nifty tips

Press the Enter key .....

Enter the test to be ordered in the Orderable Field



We're looking for a Basic Metabolic Panel

Search for the new test.

#### To Override or Not to Override

When orders are added onto an existing accession number they need to be assigned a container<sup>32</sup>. This section will help walk you through the processes. It may sound more confusing than it is.<sup>33</sup>.

Before you begin, it's helpful to know the what containers are on the original accession number. To find out we can use our buddy, Container Inquiry $^{34}$ 

<sup>32</sup> Refer to: **Accession Numbers**: Con-TAINER IDENTIFIERS *PG.* 23 if needed. <sup>33</sup> sorry⊗

<sup>34</sup> Refer to: **CONTAINER INQUIRY** *pg.* 54

IF YOU'RE ASKED to "Override," you can think of the question like this:

"Can the add-on use the original container? $^{35}$ ""

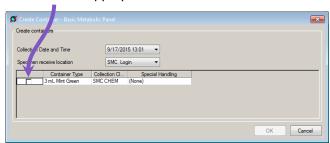


<sup>35</sup> "Can a Basic Panel be run on a Lavender?"

You clicked "No" when asked to override.

#### **Not Overriding**

Select the appropriate container

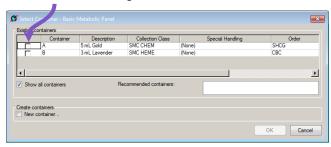


Click and continue the order as normal.

#### Overriding

Choose an existing container:

OK

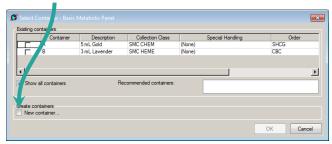


-OR-

You clicked "Yes" when asked to override.

**▲IMPORTANT**: Only **☑**one of these boxes, selecting multiple containers will assign the order to multiple containers, and that's just asking for trouble.

Create a new container.



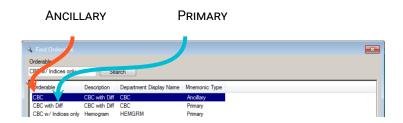
Click to add the test onto the selected container This is the same as clicking "No" to the override question.

**▲IMPORTANT**: Do not **☑**both "New Container..." AND an existing container. Again, just asking for trouble.

# Tips on Searching for Orderables

Learning how to locate orderables on any new system can be challenging. Fortunately, Cerner has made this a bit easier with the addition of Ancillary Orderables.

Ancillary Orderables are aliases for the real (Primary Orderables) orderable. They have been built in to help us search for orderables.



In this example, "CBC" is an "Ancillary" to "CBC with Diff." Without this ancillary, "CBC w/Indices only" would appear first when searching for "CBC".

THERE IS NO DIFFERENCE between the Primary Orderable and it's Ancillary Orderables

#### Search Tips

As you get familiar with placing orders, you'll begin to notice that some search terms will trigger Cerner to choose the orderable for you.

**AWARNING:** This means Cerner may select an order different than you intended e. g. "Teg" will select "Tegretol."

THE FASTEST WAY TO FIND common orderables:

· D-Dimer: dimer

• Glucose: "glucose r"

· Intra Operative PTH: "intra"

· Troponin: "trop"

• Most fluid counts: "cdx"36

If you can't find the order you're looking for, try synonyms (e.g. Synovial Fluids are often called "Joint fluids.")

<sup>36</sup> "cd" will bring up CD markers.

# Additional Information

#### Those Other Functions

As you familiarize yourself with DOE you may notice that it has some additional modes *i. e. Cancel Orders, Modify Orders, and Batch Orders.*For the time being, we have little use for those modes. It's much easier to perform those functions in other applications.

#### **Submitting Orders**

When placing

# PART IV

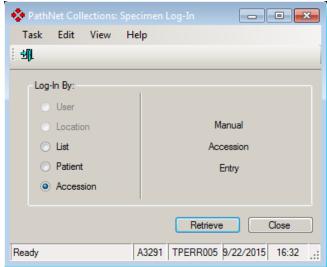
# SPECIMEN LOG-IN

## Introduction

Specimen Log-in is the application used to update sample locations within Cerner. This application will most commonly be used to log-in samples which have been collected by the floors.

This application is also used to log in "Transfer Lists" sent by other facilities.

OPEN Specimen Log-in by clicking the sicon from the App-Bar.



THERE ARE THREE way's samples can be logged-in:

List: Log-in an entire list. Either Collection List, or Transfer List

Patient This is to log samples in using a Patient Identifier.<sup>37</sup>

**Accession:** Log-in samples using the Accession Number *i. e. barcode*. <sup>38</sup>

<sup>&</sup>lt;sup>37</sup> This may be useful for sites where the Laboratory collects samples.

 $<sup>^{\</sup>rm 38}$  This is the method which will be used most often.

# **Getting Started**

The first time opening Specimen Log-in, it's a good idea to modify the default values.

OPEN Specimen Log-in by clicking the icon from the App-Bar.

Select "Accession" from the "Log-in By" options.

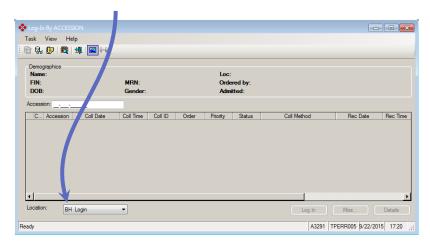
Click Retrieve to open "Log-In By ACCESSION"

#### Setting Location

The most important setting in Specimen Log-in is the "Location." In most cases, the location will be set to your laboratory's "Log-in Location."

**Fun Fact:** Most Log-in related mistakes come from this being set to the wrong location.

#### LOCATION



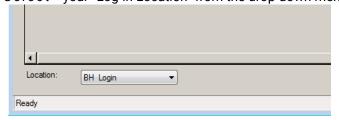
- BH LOGIN SHC LOGIN SNW LOGIN - DC LOGIN - SHL LOGIN - SSW LOGIN
- SEBD LOGIN SMC LOGIN SWC LOGIN

e.g. Dell's log-in location is "DC Login"

Of course, there are exceptions. Some departments will require an alternate Log-in Location *e.g. Microbiology, Blood Bank, etc....* Departments which require special log-in locations should provide that information.

**AIMPORTANT:** This setting is "Sticky" and there is no "Default" value. If you temporarily change it from your normal log-in location,  $^{39}$ , it needs to be changed back.  $^{40}$ 

Select your "Log-in Location" from the drop-down menu.

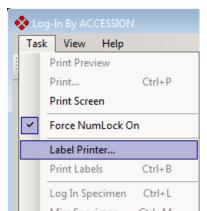


<sup>39</sup> e.g. Receiving microbiology samples

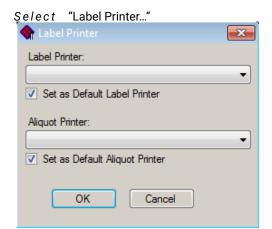
 $^{\rm 40}$  This will be a common mistake for people starting out.

#### Setting Default Printers

Click "Task" from the menu-bar.



GENERAL LAB GUIDE GETTING STARTED 50



Set both drop-down menus to the the nearest label printer.

Click OK to save the settings.

**Note:** To save the settings temporarily, □Uncheck the "Set as Default..." options

# Log-in By Accession Number

Log-in by Accession Number is used to log-in samples using the *barcoded* label on the container.

▲IMPORTANT: While, the accession number can be manually entered, it's not recommended. Accidentally omitting the container identifier will cause uncollected containers to be received in error.

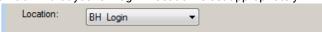
OPEN Specimen Log-in by clicking the icon from the App-Bar.

Besides, scanning the tubes is much easier and faster.

Select "Accession" from the "Log-in By" options.



Check that you're "Log-in" location is set appropriately.



Click on the "Accession" entry field.



Make sure you see that blinky line thing: |
info: Skipping this step after changing locations will cause a minor inconvenience.

Accession: 15-268-000019A

Scan the bar-code of the container.

# Troubleshooting

I've Logged a Sample Into the Wrong Location

Don't Panic! Simply log it into the correct location.<sup>41</sup>

 $^{\rm 41}\,{\rm This}$  is assuming it was incorrectly logged in using Specimen Log-in

# PART V

# CONTAINER INQUIRY

## Introduction

Container Inquiry is used to view tracking information on accession numbers and containers. It allows you to see where samples have been, who they were logged in by, and when. In addition, it will show Routing Information.  $^{42}$ 

Container Inquiry is, *by far*, the most helpful application when it comes to troubleshooting. When having difficulty with an accession, this is the first application that should be opened.

OPEN Container Inquiry by clicking the icon from the App-Bar.



 $^{\rm 42}\, {\rm The}$  location and department where an order will be tested, and it's In-Lab location.

CONTAINER INQUIRY IS DIVIDED into parts to Container Inquiry:

**Demographics:** This will have demographic information on the patient

 $\begin{tabular}{ll} \textbf{Container List:} & This is a list of all containers on the accession number. \end{tabular}$ 

**Event List:** The list of events that have occurred on the selected container.

<sup>&</sup>lt;sup>43</sup> **Note:** If a container identifier is used, this list will only have one container.

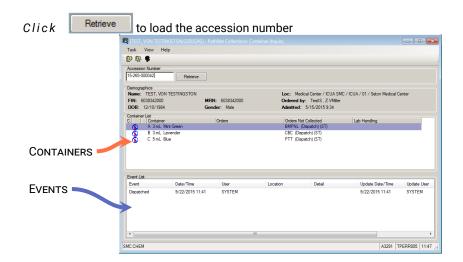
# **Inquiring About Containers**

Container Inquiry can view accession numbers with or without using the container identifier. If a container identifier is used Container Inquiry will only show details for the container specified. 44

Enter an accession number in the accession number field.



<sup>44</sup> e. g. Accn: 15-123-123456 has two containers. If 15-123-123456A is entered, only the details for container A will be displayed.

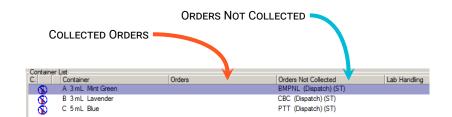


The accession number shown has three containers. We can see that container "A" has been "Dispatched."  $^{45}$ 

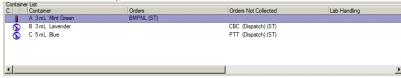
#### Container List

The Container List shows the list of containers, and separates orders by "Orders" and "Collected"

<sup>45</sup> Clicking on the other containers will show that they have also been "Dispatched."



As the containers are collected, the order will move from the "Orders not Collected" column, to the "Orders" column.  $^{46}$ 



<sup>46</sup> The next section will discuss this a bit more

Container "A" has been collected in this image.

#### **Event List**

The Event List shows the list of events for the container selected in the "Container List"

#### COMMON EVENTS:

**Dispatched:** The order has been placed, and the labels have printed.

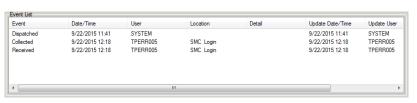
Collected: The sample has been collected.

Received: The sample has been logged into a laboratory.

Logged Out: The sample has been logged out of the laboratory.

**In Transit:** The sample is on a transfer list and on it's way to another facility.

THIS IS THE container list for Container "A" in the example above. We can see that it was *Dispatched, Collected,* and *Received.* <sup>47</sup>



<sup>47</sup> i. e. Received at SMC Login **Note:** This is important when it comes to troubleshooting.

#### Routing

Cerner is very picky about what can be done to samples and where. For instance: If a sample has not been logged into it's routed location, Cerner will not allow results to be entered. 48

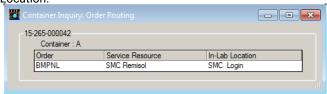
To VIEW ROUTING information:

<sup>48</sup> A test performed exclusively at Brakenridge cannot be resulted until it has been Logged-in at "BH Login"

Right Click on the container in the "Container List."



THE "ORDER ROUTING" window will open. This window will show a list of orders for the container, along with a Service Resource, and In-Lab Location.



Service Resource: The Instrument or Bench where the test will be performed.

In-Lab Location: The Login Location where the sample needs to be logged into before it can be resulted.

# Using Container Inquiry for Troubleshooting

Since Container Inquiry tracks samples so well and Cerner is so picking about Routing Information, Container Inquiry is the *best* application to use when trouble arises.

This chapter will discuss what you should look for when an accession number doesn't seem to "work."

#### Log-in Location

If you're unable to *Transfer*, or *Result* orders, the most common issue is that it hasn't been "Logged-in" to the correct location.

This can happen if the wrong location was selected in Specimen Log-in or the sample hasn't been Logged-in at all

*Open* the accession number in Container Inquiry

Check the In-Lab Location of the container.<sup>49</sup>

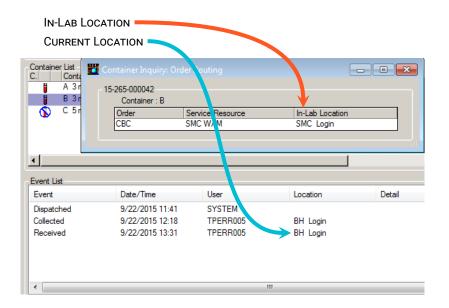
Check the current location of the sample  $^{50}$ 

Or, you're trying to result someone else's stuff.

<sup>49</sup> **Hint:** Right click on the container, and select: "Show Routing."

<sup>50</sup> **Hint:** It's the last "Recieve" event in the *Events List* 

The "In-lab" location is SMC Login, however the sample has been "Received" at BH Login

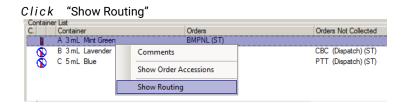


#### Finding Where Samples Need to Go

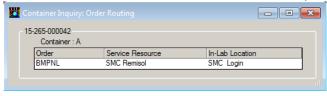
Have you ever thought to your self: 'I have no clue where this test is performed.' Well, the answer to that question can be found in the "Order Routing" of Container Inquiry.

Open the accession number in Container Inquiry

Right Click on the container in the "Container List."



THE SERVICE RESOURCE is the location where the order is performed.



# PART VI

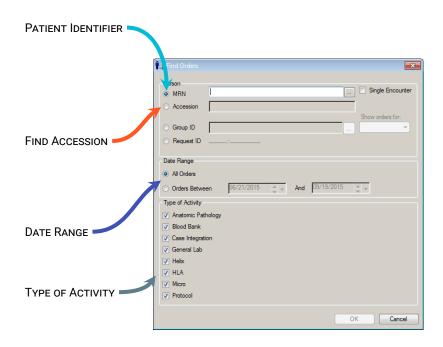
# ORDER RESULT VIEWER

# Introduction

The main function of ORV is to view orders and results on individual patients or accession numbers.

In addition, It can be used view previous results and cancel orders. It can also branch to other applications such as Container Inquiry, ARE, and login.

OPEN ORV by clicking icon from the App-Bar



When ORV is opened, the FIND PERSON window will also appear. This window is used to select the patient or accession number.

# Getting Started

When opening ORV for the first time, it is a good idea to change the default value for the "Find Person" field.

While there are many options which can be modified, it's best to avoid changing them until you've become familiar with how ORV works. Modifying these settings can make it difficult to find orders.



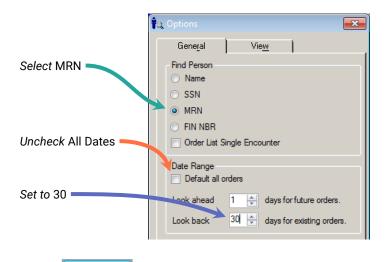
IN THE MAIN ORV window

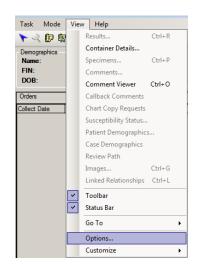
Click View from the taskbar

#### Select Options...

Click

This will open the Options window. The two options we are going to adjust are the Find Person option and the Date  $\,{\rm Range}^{51}.$ 





<sup>51</sup> This option will speed up the time it takes to search for orders.

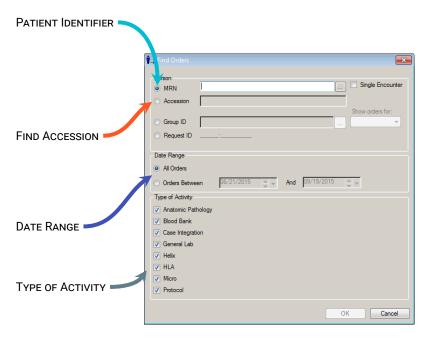
**AWARNING:** Again, avoid those other options. If you want to filter, it can be done in the "Find Orders" window.

# Finding Orders

From the FIND ORDERS window  $^{52}$  orders can be queried using a patient identifier  $^{53}$ , or accession number. The results can also be filtered by date range or type of activity.

<sup>52</sup> Click the icon from the tool-bar to reopen the "Find Orders" window

<sup>53</sup> i. e. Name, MRN, FIN, or Social Security Number



HERE IS A DESCRIPTION of the options:

PATIENT IDENTIFIER:: Search for orders using a patient Identifier.

**Accession Number::** Search for orders using an Accession Number. The orders displayed will be limited to those on the accession number.

**DATE RANGE::** When ORDERS BETWEEN is **'**d, orders will be limited to the date range set.

**TYPE OF ACTIVITY::** Select which types of orders are displayed. This is useful if too many unwanted orders are returned.

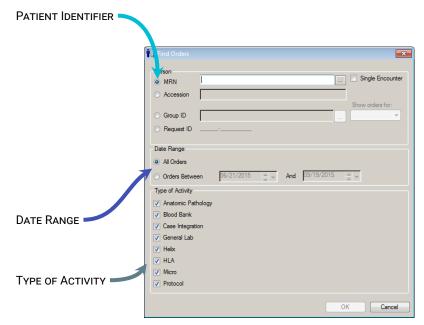
FINDING ORDERS 65 **GENERAL LAB GUIDE** 

#### Searching by Patient

Using a PATIENT IDENTIFIER to search for orders will pull up all orders for that patient.

These results can be limited by Encounter, Activity Type, and Date Range. In most cases, it's not necessary to adjust the filters.

Enter the patient identifier in the FIND PERSON field. 54



54 info: You can temporarily change the Find persons field.

Right-Click on it. Then, select the desired search parameter.



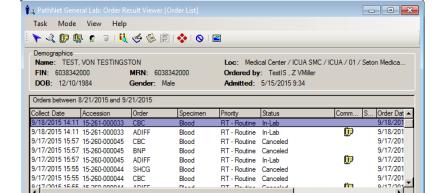
Modify the filters (date range and type of activity), if needed 55

to search for orders.

OK

Click

A3291 TPERR005 9/20/2015 18:21



<sup>55</sup> In most cases this step is unnecessary as they can limit the results displayed.

GENERAL LAB GUIDE FINDING ORDERS 66

#### Searching by Accession Number

Using an accession number to search for orders allows us to quickly view the orders on one specific accession number. This is especially useful when canceling orders.  $^{56}$ 

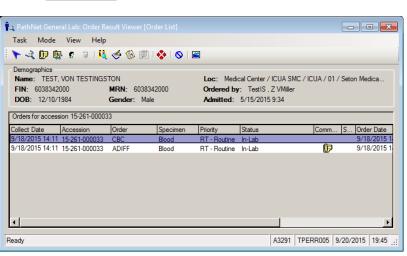
<sup>56</sup> Refer to: CANCELING ORDERS PG. 72

#### Click Accession option.



Enter the accession number 57

Click OK to search for orders.

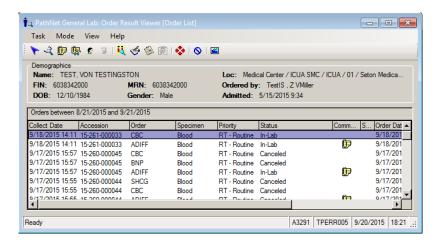


<sup>57</sup> **info:** Refer to: **Accession Numbers:** ENTERING ACCESSION NUMBERS *PG.* 25 For some nifty tips

# Viewing Orders

Up to this point, you've seen how to search for orders on a patient.

This section will discuss the functions which can be performed after orders have been found.

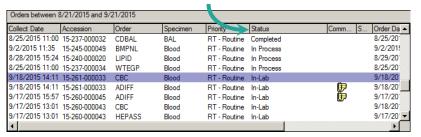


#### Sorting the list

The orders are displayed in a table. Each row represents a specific ORDERABLE. The columns are details about that orderable e.g. Collect Date, Accession Number, Priority, etc....

THE TABLE CAN be sorted by clicking on any one of the column headers.

#### **COLUMN HEADERS**



Clicking on the word "Status" sorts the list by "Status."

GENERAL LAB GUIDE VIEWING ORDERS 68

**A WARNING:** This section uses a lot of fancy Cerner terms. If needed, refer to the **Glossary** for help

#### Orderable Status

Knowing the meaning of the ORDERABLE STATUS in ORV will go a long way when it comes to troubleshooting issues you may run into.

Cerner will not allow certain functions if the order status isn't correct e. g. You can't perform results if the sample is not "In-lab," or "In Process."

**Dispatched:** The sample labels have printed, but the sample has not been collected yet.

**Collected:** The sample has been collected, but it has not been received by the laboratory.

**In-Lab:** The sample has been received by the testing laboratory, but no results have been verified.

**In Process:** The sample has been received by the testing laboratory, and partially resulted.

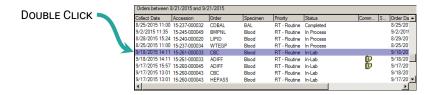
**Completed:** All of the results on the orderable have been verified.

Canceled: The order has been canceled.

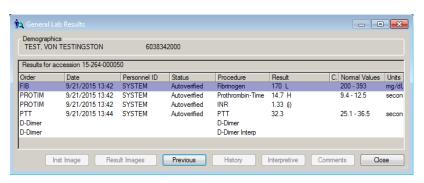
**In Transit:** The sample has been put on a transfer list and is in-route to another site.

#### Viewing Results

To view the results of an order, simply double click on it's row in the order table.



THE RESULTs for the entire accession number will display in a pop-up window.  $^{\rm 58}$ 

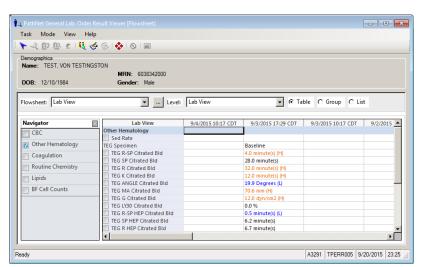


<sup>58</sup> If they don't, check the status of the order. If it's not COMPLETED, IN-LAB, or IN PROCESS, there aren't any results which can be viewed.

SELECTING AN ASSAY and clicking Previous will show the previous results for that assay. <sup>59</sup>

#### Flowsheet Mode

ORV has two modes. Order List, and Flowsheet mode. In the laboratory, Order List mode will be used a majority of the time. However, Flowsheet can come in handy when inquiring about previous results, or when talking with Powercharts users.



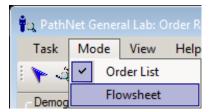
<sup>59</sup> **info:** The first item in the PREVIOUS RESULTS will always be the result selected. ONE RESULT MEANS THERE IS NO PREVIOUS

How to get to flowsheet mode.

Click Mode on the menu bar

#### Click FLOWSHEET

THIS GUIDE IS getting long. It's best if we don't dive too deep into Flow-sheet mode. It's there, play around with if you'd like.



GENERAL LAB GUIDE VIEWING ORDERS 70

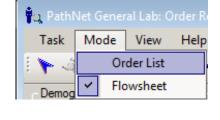
#### **AIMPORTANT:** Switch back to **Order List** mode when you're finished.

Click Mode on the menu bar

Click ORDER LIST

#### **View Comments**

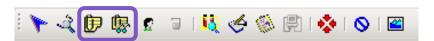
Any order which has attached comments will have a picon in the "Comments" column.



#### COMMENTS

Collect Date	Accession	Order	Specimen	Priority	Status	C	omm	S	Order Da 4
8/25/2015 11:00	15-237-000032	CDBAL	BAL	RT - Routine	Completed				8/25/20
9/2/2015 11:35	15-245-000049	BMPNL	Blood	RT - Routine	In Process				9/2/201!
8/28/2015 15:24	15-240-000020	LIPID	Blood	H - Routine	In Process				8/29/20
8/25/2015 11:00	15-237-000034	WTEGP	Blood	RT - nu tine	In Process				8/25/20
9/18/2015 14:11	15-261-000033	CBC	Blood	RT - Routine	'a-Lab				9/18/20
9/18/2015 14:11	15-261-000033	ADIFF	Blood	RT - Routine	In-Lab		(i)		9/18/20
9/17/2015 15:57	15-260-000045	ADIFF	Blood	RT - Routine	In-Lab		<u> </u>		9/17/20
9/17/2015 13:01	15-260-000043	CBC	Blood	RT - Routine	In-Lab		_		9/18/20
9/17/2015 13:01	15-260-000043	HEPASS	Blood	RT - Routine	In-Lab				9/17/20
4									▶

COMMENTS CAN be viewed by clicking the *either* of the "Comment" icons on the Tool-bar.



 ${\sf COMMENTS}^{60}$ , will open the "Comments" window. From here you can see Order Comments and Order Notes.

Comments Viewer  $^{61}$  opens the "Comment Viewer" This will show all available comments for the order. It can also be kept open with ORV and will update as different orders are selected.

<sup>&</sup>lt;sup>60</sup> The one on the left "Note and paperclip"

 $<sup>^{\</sup>rm 61}$  The one on the right, "Note, paperclip and tiny glasses"

# **Branching**

From Order Result Viewer other applications can be opened with selected orders. This allows us to quickly and easily switch between tasks.

MOST OF THE branching can be done using the icons from the tool bar.

Select the order to open in the branched application.

Click the appropriate Icon from the tool-bar.<sup>62</sup>

CONTAINER INQUIRY: allows us to quickly view tracking information on a sample.

<sup>62</sup> **info**: Hovering over the icons will display their name.



ARE: allows us to enter, perform or verify results on a selected order.



Specimen Log-in: allows us to log-in any samples that may have been missed, or logged into another location.



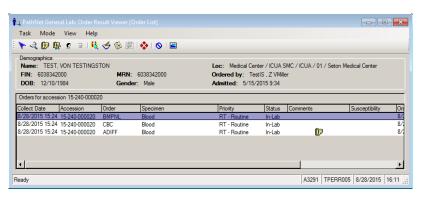
# Canceling Orders

ORV is often used for canceling orders. The advantage of using ORV is that orders can be quickly pulled up by scanning the sample's barcode. If an order status is *Completed* or *In Process* it cannot be canceled. <sup>63</sup> If you recall, orders with those statuses already have verified results. <sup>64</sup>

To START, pull up the orders to be canceled in ORV.

63 Luckily, ORV will disable the 64 Refer to: Accession Result Entry: CANCELING ORDERS PG. 78

Select the order to be canceled.

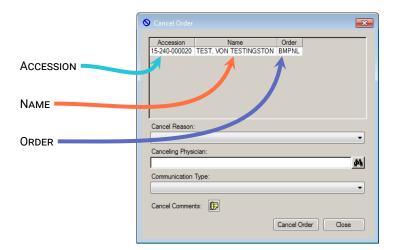


The basic panel was sent down in a Lavender Top. It needs to be canceled.

Click on the oicon in the Tool-bar to open the Cancel Order dialog.

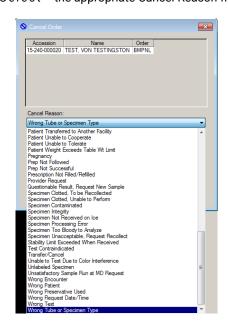


Review the details of the order to be canceled.



Check that the Order and Patient's name.

Select the appropriate Cancel Reason from the drop-down menu.



In this case we will choose "Wrong Tube or Specimen Type"

Click the icon to open the Cancel Comment window. 65

ENTER ANY REQUIRED comments.

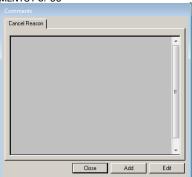
Click the Edit button.

Type "call" and hit **F9** ■ to expand the call template.

Hit F3 In to move between the required fields.

Click OK when finished.

65 Refer to: **Comments**: Entering Comments *PG*. *88* 

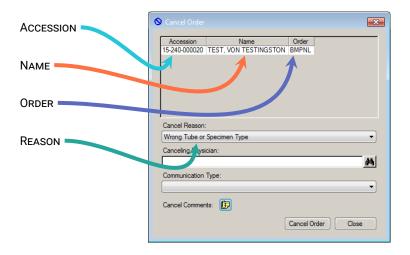


GENERAL LAB GUIDE CANCELING ORDERS 74

Click Close to close the Comments dialog.

AT THIS POINT you should be back to the CANCEL ORDER window.

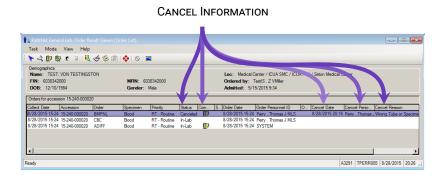
Review the information to ensure everything has been entered correctly.



Check that the Order, Patient's name, and Cancel reason match.

Click Cancel Order when finished.

ORDER RESULT VIEWER will refresh with the updated information for the canceled order.



THE STATUS HAS BEEN updated to CANCELED. In addition, ORV now shows the CANCEL COMMENT, DATE, PERSON, and REASON.

## Troubleshooting

Here are some common issues that come up when first learning Department Order Entry.

## Unable to Search by Accession Number

The last time ORV was open, it was most likely in "Flowsheet" mode. This mode does not allow searching by accession number.

WE CAN FIX THIS by switching back to ORDER LIST mode

Close the FIND ORDERS window.

Click Mode on the menu bar

Click ORDER LIST

## Branching Applications Won't Open.

This is usually caused by one of two things:

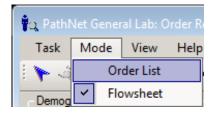
**THE APPLICATION IS HIDDEN BEHIND ANOTHER WINDOW:** - Simply move, or minimize ORV.

**THE APPLICATION HAS ALREADY BEEN OPENED:** - Cerner will re-use branched applications.

This means, if you branch to ARE and leave the window open, ORV will use the open window the next time you branch  $^{66}$ .

Since pulling up a new accession number could cause un-performed results to be lost, Cerner will not allow the second application to open.

Basically, just close all those windows except ORV and try again.



66 Still with me?

## PART VII

# ACCESSION RESULT ENTRY

## Introduction

intro

## **Canceling Orders**

canceling

## PART VIII

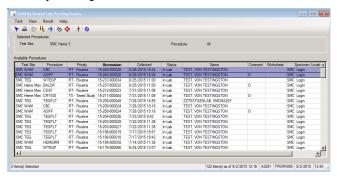
## PENDING INQUIRY

## Canceling

## Canceling from Pending Inquiry

WITH PENDING INQUIRY we have the ability to cancel multiple orders at the same time. This can be useful in cases where all the orders on a container need to be canceled (I.e. a CBC and ADIFF are clotted.)

From Pending Inquiry select the orders which need to be canceled by clicking on them.



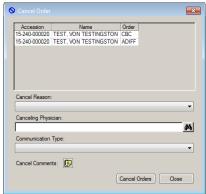
To select multiple orders hold down the Ctrl key selecting additional orders.

Both the CBC and ADIFF are selected.

Click on the  $\bigcirc$  icon in the Toolbar to open the "Cancel Order" window.

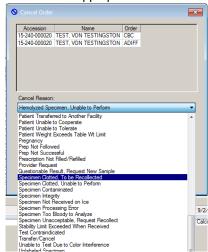


Note: If part of the order has been resulted, Cerner will display a message saying: "The selected Order Cannot be Canceled" Most likely, the rest of the order must be resulted with a freetext result and the test must be credited. Review the information to ensure the right order has been selected.



Check that the Order(s) and Patient's

Select the appropriate Cancel Reason from the drop-down menu.



In this case we will choose "Specimen Clotted. To be recollected"

Click the licon to open the Cancel Comment window. ENTER any required comments

Click the \_\_\_\_\_ button.

Type "call" and hit the F9 key to expand the call template.

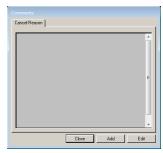
Using the F3 key, fill move through the required fields.

Click when finished.

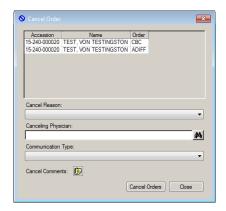
Click Close to close the Comments dialog.

Review the information to ensure everything has been entered correctly. Click Cancel Order when finished.

The "Cancel Comment" window will open.



See the "Comments" procedure for more information



Check that the Order, Patient's name, and Cancel reason match.

PENDING INQUIRY WILL refresh, and the canceled tests will no long be visible.

## PART IX

## TRANSFER SPECIMEN

GENERAL LAB GUIDE 85

transfer specimen

## PART X

## COMMENTS

GENERAL LAB GUIDE 87

Comments

## **Entering Comments**

## PART XI

## DOWNTIME PROCEDURE

## Introduction

intro

## PART XII

## **APPENDIX**

## Sunquest to Cerner: Application Equivalents

You may be thinking: "What's the Cerner equivalent of XYZ?" Well, look no further my friend. Some Cerner applications replace multiple Sunquest functions.

SUNQUEST	Icon	CERNER
ADIQ	<b>Y</b> Q	Order Result Viewer
ANIQ		Container Inquiry
CLVS		Specimen Log-in
IRA	<b>†</b> Q	Order Result Viewer
IR	<b>†</b> Q	Order Result Viewer (flowsheet mode)
IQ	<b>†</b> Q	Order Result Viewer
MEM	<del>&amp;</del>	Accession Result Entry
OEM	<u>&amp;</u>	Accession Result Entry
OER	<b>†</b> Q	Order Result Viewer
PL	Ē	Pending Inquiry
RE		Department Order Entry

## Sunquest to Cerner: Terminology

**Test Section** 

TRA	NSL	ATI	ONS	S

SUNQUEST CERNER

Received In-Lab

## Acronyms

ARE ACCESSION RESULT ENTRY

**DOE** DEPARTMENT ORDER ENTRY

FIN FINANCIAL NUMBER

MRN MEDICAL RECORD NUMBER

**ORV** ORDER RESULT VIEWER

## Glossary

## Δ

## **ACCESSION ADD-ON**

An order that has been or should be added onto an existing Accession Number.

### **ACCESSION NUMBER**

The number assigned to a group of orders with the same collection type and time.

## **ACCESSION RESULT ENTRY**

The Cerner Application used to enter perform and verify general laboratory results.

## **ANCILLARY ORDERABLE**

Orderables with the mnemonic type of "Ancillary" are aliases to the "Primary" orderable. Basically, they are just another name for a test.

## APP-BAR

The Cerner Application used to view the orders on a patient or accession number.

## B

## **BLOOD BANK RESULT ENTRY**

A Blood Bank application used to enter and correct results for blood bank procedures ordered on patients or blood bank products.

## C

### **CANCELED**

Is a status which means the order has been canceled.

## COLLECTED

Is a status which means the sample has been collected, but has not been logged-in to the laboratory.

## **COLLECTIONS INQUIRY**

The Cerner Application used to view Collection Lists, Transfer Lists, and all pending orders for a patient. This application is helpful in tracking down samples that have been transfered between sites, and helping nurses find "missing" labels.

## **COLLECTIONS LIST**

The Cerner Application used to view "Collections Lists." Future orders will appear here before they have been assigned accession numbers.

## COMPLETED

Is a status which means all of the results have been verified.

## **CONTAINER IDENTIFIER**

A letter appended to the end of an accession. It is used to differentiate containers associated with an accession number.

## **CONTAINER INQUIRY**

The Cerner Application used to view the details of accession containers. This is, by far, the most useful application within Cerner. It will be your best friend.

## **CORRECT INVENTORY**

A Blood Bank application to modify existing product information. This application can unlock products, change product demographic information, change final disposition information, update emergency dispense information, update special testing information and add to pooled product.

## D

## **DEPARTMENT ORDER ENTRY**

The Cerner Application used to place orders on in-house patients. It can also be used to add orders onto existing accession numbers.

## DISPATCHED

Is a status which means the labels have printed, but the sample has not yet been collected.

## **DISPENSE AND ASSIGN PRODUCTS**

A Blood Bank application to dispense and assign products to patients for future use. It can be used to dispense products to patients in an emergency situation.

## **DOWNTIME**

A situation where Cerner is unavailable.

## F

## FINAL DISPOSITION

A Blood Bank application used to perform three different updates to blood products. **Transfuse, Dispose and Destroy** 

### FINANCIAL NUMBER

A unique number used to identify a patient encounter

### **FLOWSHEET**

A mode within Order Result Viewer which shows a history of laboratory results. This mode is almost identical to the Flowsheet in Powercharts.

## G

## **GENERATE TAGS AND LABELS**

A Blood Bank application to create tags and labels on-demand.

## IN PROCESS

In Process a status which means one or more of the assays within the orderable has been resulted. e.g. A Lytes has been ordered, but only the Sodium has been resulted and verified.

### IN TRANSIT

Is a status which means the sample has been collected and is in-route to another site.

### IN-LAB

Is a status which means the sample is has been logged into the current laboratory, but no results have been verified.

### IN-LAB LOCATION

The location the sample must be Logged into before the orders can be resulted. Containers must have a status of "Recieved" with this location.

### INVENTORY SEARCH

A Blood Bank application used to search the Blood Bank Inventory for specific products.

## L

## LABEL PRE-PRINT

The Cerner Application used to generate downtime labels. These are labels with accession numbers of yy-400-xxxxxx and above.

## LABEL REPRINT

The Cerner Application used to reprint accession labels to any label printer.

## LABEL VERIFY

A Blood Bank application that verifies the label affixed to blood bag after modification or pooling. It does this by comparing the details on the label with the values stored in the system.

## M

### MEDIA LABEL REPRINT

The Cerner Application reprint microbiology media labels.

## MEDICAL RECORD NUMBER

A unique number assigned to a patient.

## **MODIFY COLLECTIONS**

The application used to modify the collection date, time, or method. If results have been.

### MODIFY CROSSMATCH

A Blood Bank application that reinstates a completed crossmatch and updates the crossmatch expiration date and time for a product.

### **MODIFY PRODUCTS**

A Blood Bank application to modify or pool products. New products can be created from existing products in inventory, split products, add product attributes, convert autologous and directed products to allogeneic products, and create single pooled products from multiple component products.



### **ORDER INQUIRY**

A Blood Bank application to display detailed information about product orders. Order Inquiry reports can be generated to print details about the orders displayed.

## **ORDER RESULT VIEWER**

The Cerner Application used to view the orders on a patient or accession number.

## ORDERABLE

An Orderable is anything that can be ordered in the laboratory. It can be an individual assay (e.g. Glucose,) a panel (e.g. Basic Metabolic Panel,) or a care-set (e.g. Glucose Tolerance Test.)

### **OSM Requisition Order Entry**

The Cerner Application used to place orders on outreach patients.

## P

## PATIENT PRODUCT INQUIRY

A Blood Bank application to view a list of products currently associated with a patient. Antiboidies, Blood Bank comments, and transfusion requirements can also be viewed.

### PENDING INQUIRY

The Cerner Application used to view pending orders, In the event an instrument goes down, this application can be used to transfer orders to another site.

### **PERFORM**

Entering a result into Accession Result Entry.

### PRIMARY ORDERABLE

Orderables with the mnemonic type of "Primary" are just plan old orderables. They may or, may not have Ancillary aliases.

### PRODUCT HISTORY REVIEW

A Blood Bank application used to display a detailed overview of current product activity.

### **PRODUCT ORDERS**

A Blood Bank application to place on-demand orderes for laboratory and blood bank procedures directly on blood bank products, without an association to a specific patient.

## Q

## QC INQUIRY

A Blood Bank application used by supervisory personnel to review Blood Bank quality control results entered in Quality Control Result Entry.

## **QUALITY CONTROL RESULT ENTRY**

A Blood Bank application to create and maintain quality control (QC) groups and to enter results for selected QC groups.

## **QUARANTINE PRODUCTS**

A Blood Bank application used to add or remove the "Quarantined" state on blood bank products.

## R

## **RECEIVE PRODUCTS**

A Blood Bank application used to receive products into the Blood Bank inventory. It can also print a report of products received as well as component tags and pilot labels.

## RELEASE PRODUCTS

A Blood Bank application used to release products from an active Crossmatched or assigned state.

## REPORT SELECTION

A Blood Bank application to print blood bank reports that are used to assist in inventory management and supervisory review of patient-related events.

## **RESULT ENTRY**

The Cerner Application used to result microbiology orders.

## **ROUTING INFORMATION**

The location and department where an order will be tested, and it's In-Lab location.

## S

## SCRATCH-PAD

A space in Department Order Entry where individual tests are held temporarily until the entire order is ready to be submitted. Tests which are in the Scratch pad can be edited or removed.

## SERVICE RESOURCE

A bench or resource where tests are performed.

## SPECIMEN LOG-IN

The Cerner Application used to "Log-in" samples. It can also be used to log-in entire transfer lists from other sites.

## Τ

## TRANSFER SPECIMENS

The Cerner Application used to "Transfer" samples from the collecting site to the performing laboratory.

## Index

Canceling from Pending Inquiry, 81