## AmerisourceBergen

**Oncology Supply** 

# **Nucleus Overview**

Taylor Caldwell

Manager, Technical Consultants

Oncology Supply

## **Nucleus Equipment Details**

#### Full-Size Station (UAC & AUX) Details

- Integrated touchscreen, label printer, and receipt printer for maximum space utilization. Additional Auxiliary units available.
- Space is available for a dorm size refrigerator to fit inside the Nucleus cabinet.
- Maximum Dimensions for Refrigerator Inside Nucleus: 21.75" W x 25" D x 35" H
- Electronic Refrigerator Lock (ERL) available for customers utilizing a refrigerator that cannot be placed inside the Nucleus cabinet.

#### **Virtual Printing Module (VPM) Details**

- Integrated receipt and label printers.
- Ability to use external refrigerator locks (full-size VPM only).
- External touchscreen and keyboard
- Two size offerings

#### **Desktop Details**

- Ability to store any inventory in virtual doors.
- · External touchscreen and keyboard

UAC Single Unit L

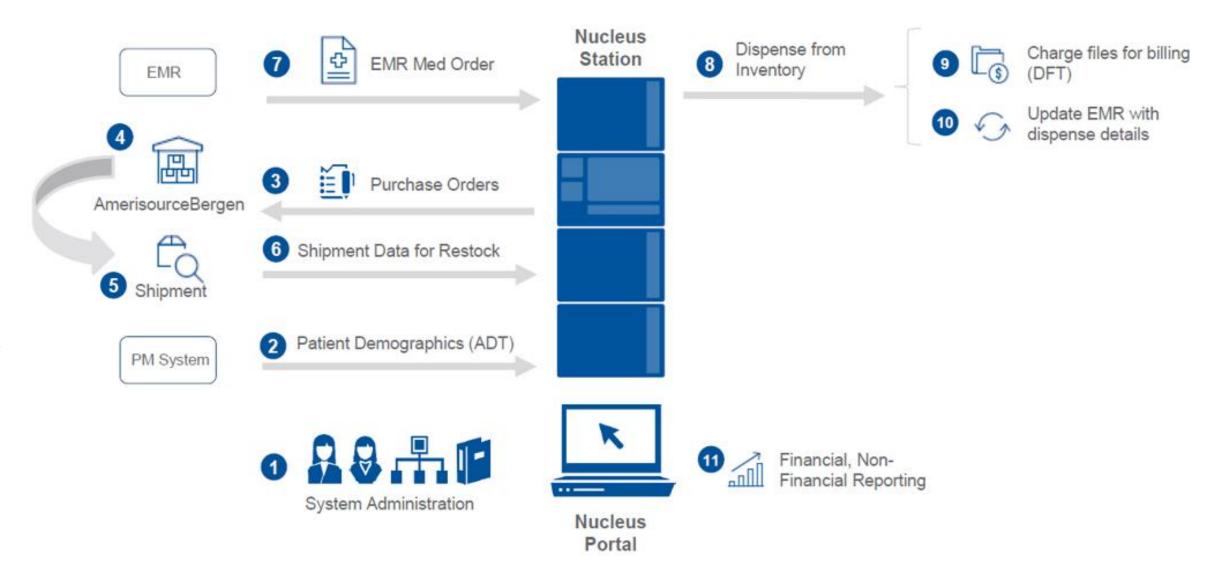






## Treatment/Inventory Capabilities

Our applications and interfaces work together to provide efficient treatment and inventory management

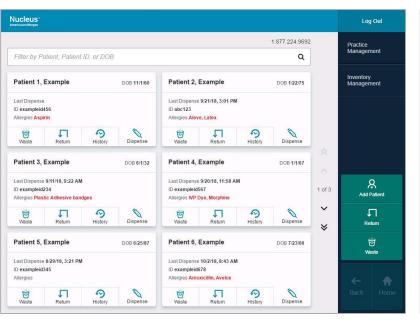


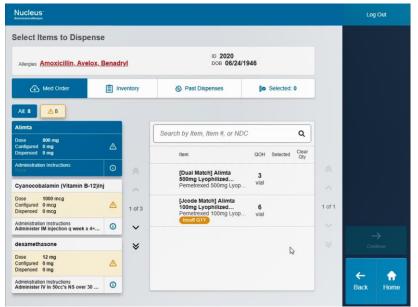
### **Nucleus Cloud**

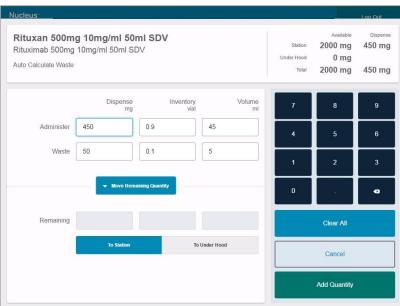
Using software and data stored securely in "the cloud" is no longer a new thing; many enterprises have already adopted cloud-based technology solutions for greater resilience and convenience.

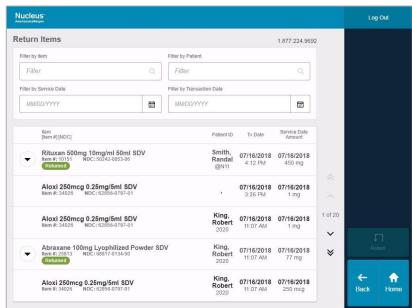
Nucleus continues to push the boundaries of what's possible in inventory management with streamlined functionality, increased security, broader integrated ordering, and enhanced witness workflow, while adding the effortless maintenance benefits of a cloud-based system.

This latest iteration of Nucleus brings your practice's ultimate inventory management wish list to life, with the same great Oncology Supply service.









## **Nucleus Inventory Management**

#### Key Nucleus Features

#### **Lot Number Tracking**

• Lot Number Tracking enhancements include the ability to have multiple lot numbers and expirations date for each NDC assigned.

#### **Barcode Scanning**

• Now implementing wireless barcode scanners to track NDC, Lot Number and Expiration date for dispense, assignment and restock functionalities.

#### **Witness**

Ability to set items for dual-user verification and blind counts.

#### **Patient Owned Items**

• Create patient-specific items that link to single patients. These new Patient Owned Items (PATOI) will only appear for use when that patient is selected for dispense.

#### **Demand Order Enhancements**

• Development team has been working on increased matching performance for the Demand Order report. This report will help forecast inventory needs in advance per OncoEMR's patient schedule.

#### 'Bin Group' Enhancements

• Ability to customize the equivalent NDCs grouped in 'Bins' and order only what is set to the Bin Group.

#### **Audit Enhancements**

• New functionality includes selecting 'today's used items', patient-specific item filtering, and expiring medication filtering.

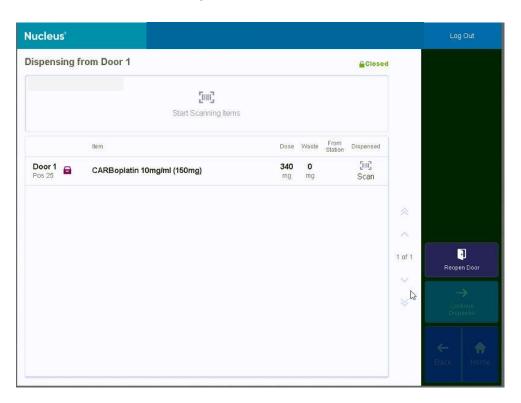
## **Nucleus Inventory Management**

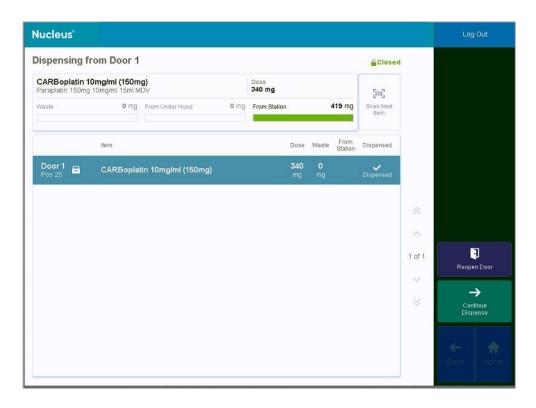
### **Barcode Scanning**

#### Barcode Scanning functionality

#### **New Updates**

- Promote further accuracy of NDC, Lot Number and Expiration Date tracking within Nucleus Cloud.
- Currently built into Dispense, Restock and Assignment functionalities. (Dispense functionality shown below)
- · Available to install at any Nucleus station.





## **Nucleus Inventory Management**

Innovative Reports

#### **Cost Analysis**

 Provides a total cost of Nucleus Inventory Restocks and Dispenses along with the average cost per Dispensing Day. Displays a Potential Savings calculated from total Days in Stock.

#### **Inventory Turnover Analysis**

 Provides a total cost of Nucleus Inventory Restocks and Dispenses along with the average cost per Dispensing Day. Displays a Potential Savings calculated from total Days in Stock.

#### **Audit Summary**

 Displays the total number of items audited in a date range along with total amount of changed quantities.

#### **Nucleus Impact Analysis Summary**

 Provides key financial, usage, and inventory data points for the following reports with Best Practices comparison. Includes Shrinkage, Cost Analysis, Inventory Analysis and Unused Product levels.

#### **Shrinkage Summary**

 Summary of actual inventory against projected inventory to show inventory loss.

#### **Unused 60 Day Report**

 Displays products that have not been dispensed in the last 60+ days. Shows total inactive days and related costs.

#### **Unused Transferrable Products Report**

 Compares items assigned in Nucleus with quantity on hand that have not been dispensed in 60+ days with active product usage from other stations within your practice.

#### **Usage Report**

 Lists product usage for a selected period, grouped by clinic, then station.
 Displays current QOH, Unit Cost, Total Cost, and Total Usage and Minimum/Maximum usage over the selected time period.

#### **Product Expiration Report**

 Provides a list of medications with upcoming expiration dates and the respective quantities.

Nucleus Impact Analysis Report

The Nucleus Impact Analysis Summary report gives key financial, usage, and inventory data points for the following reports with Best Practices comparison. This report should be set as a scheduled report for monthly review.

#### **Best Practices:**

Days on Hand – 3 to 5 Days

Turnover – 4 Times per Month

Unused – <10% Total Inventory

Test Hematology Oncology Clinic	
12	23456ST1
Inventory Turnover	
Recommended Best Practice	4 Times per Month
Average Inventory Turnover	4.5 Times per Month
Average Inventory Cost	\$108,757.26
Cost of Goods Sold	\$489,543.20
Cost Analysis	
Recommended Best Practice	3 - 5 Days on Hand
Average Days on Hand	4.4
Current Inventory Cost	\$98,127.47
Cost per Dispense Day	\$22,251.96
Savings at 5 Days on Hand	-\$13,132.34
Savings at 3 Days on Hand	\$31,371.58
Unused Products- 60 Days or Older	
Recommended Best Practice	10% Unused
Unused Percentage	7.26 %
Unused Product Value	\$7,126.53
Inventory Shrinkage	
Recommended Best Practice	\$0.00 Shrinkage
Shrinkage	\$0.00

## Nucleus Demand Order Report

### **Just-In-Time Ordering**

The Demand Order report compares orders from OncoEMR with quantity on hand to provide recommendations for inventory to purchase.

- Demand Order follows your established rules via SDV/MDV configuration and makes appropriate purchase recommendations
- Your inventory carrying costs are reduced to the lowest possible level by purchasing only what you need during a specific time period
- Dose changes and 'add-ons' are accounted for by reporting one day more than your target inventory level
- Patient 'no shoes' are used by the next scheduled patient prescribed with the same product
- Matches inventory between OncoEMR and Nucleus' formulary via JCode and GCN

Durvalumab (Imfinzi	J9173	77349	700	mg	1			
Nucleus Product Name	Nucleus JCode	GCN	ItemID	QOH	Pending PO	Pending Annex	Total Expected	Order suggestion
Imfinzi 120mg 50mg/ml 2.4ml SDV - [Dual Match]	J9173	077349	BIN	3 vial	0 vial	0 vial	3 vial	3 vial
Fulvestrant (Faslodex)	J9395	50307	2,500	mg	5			
Nucleus Product Name	Nucleus JCode	GCN	ItemID	QOH	Pending PO	Pending Annex	Total Expected	Order suggestion
FasIodex 500mg 250mg/5ml Prefill Syringe 2/pk - [Dual Match]	J9395	050307	10229422	8 syr	0 syr	0 syr	8 syr	2 syr

**Unused Inventory Reports** 

### **Unused 60 Day**

Displays products that have not been dispensed in the last 60+ days. Shows total inactive days and related costs.

Product Name	Refrigerated	Item ID	<u>Q0H</u>	<u>uom</u>	Inactive Days	Last Restock Date	Last Dispensed	<u>Total Cost</u>
Demonstration								\$32,382.79
Helpdesk Testing								\$32,382.79
OSC-HelpDesk5								\$32,382.79
Opdivo 100mg 10mg/ml 10ml SDV	Yes	44118	5	vial	102	8/12/2016	Never	\$12,412.30
Prolia 60mg/1ml Single Dose Prefill Syringe	Yes	38610	5	syr	245	3/22/2016	Never	\$4,629.85
Rituxan 100mg 10mg/ml 10ml SDV	Yes	10152	5	vial	235	2/8/2016	04/01/2016	\$3,744.60
Opdivo 40mg 10mg/ml 4ml SDV	Yes	44117	3	vial	102	8/12/2016	Never	\$2,978.94

### **Unused Transferrable**

Compares items assigned in Nucleus with quantity on hand that have not been dispensed in 60+ days with active product usage from other stations within your practice.

<u>Unused Item</u>	<u>Last Restock</u>	Refrig.	<u>Item ID</u>	<u>Transfer</u> <u>Qty</u>	<u>uom</u>	Cost on Hand	<u>Transfer</u> Station(s)	<u> QОН</u>	Usage Amt	<u>uom</u>
Helpdesk Testing										
OSC-HelpDesk5										
Rituxan 100mg 10mg/ml 10ml SDV	6/3/2016	Yes	10152	5	vial	\$3,744.60	OSC-HelpDesk6	22	1	vial
Acetaminophen 325mg Tabs 1000/pk	10/21/2016	No	37143	3,798	tab	\$56.63	OSC-HelpDesk6	663	1	tab
OSC-HelpDesk6										
Carboplatin 50mg 10mg/ml 5ml MDV	11/2/2016	No	27544	4	vial	\$35.44	OSC-HelpDesk5	12.1	1.4	vial
				End of Rep	ort					

Usage Report

Net usage per medication including real-time QOH for medications. Can be broken down via each station or given as a practice-level total. Financial and non-financial versions available.

### <u>Usage</u>

Test Practice 123 First Street	Tot	tal Stations 1	Practice Total Usage \$0.0000	Cost		
Dothan, AL 36345					Trans Date: 12/0	01/2020 to 12/31/2020
Test Clinic						
12345ST1			Products Used:	100	Usage Cost:	\$0.0000
Product Info	QOH	Total Usage	Minimum Daily Usage	Maximum Daily Usage	Unit Cost	Total Cost
Abraxane 100mg Lyophilized Powder SDV (10249460)	9 vial	45.8 vial	1.92 vial	8.98 vial	\$0.0000	\$0.0000
Acetaminophen 325mg Tab 1000/pk (37143)	0 tab	30 tab	2 tab	6 tab	\$0.0000	\$0.0000
Alimta 100mg Lyophilized Powder SDV (10239053)	18 vial	61.6 vial	1.15 vial	7.85 vial	\$0.0000	\$0.0000
Alimta 500mg Lyophilized Powder SDV (10239061)	5 vial	17.93 vial	1 vial	4.93 vial	\$0.0000	\$0.0000
Atropine Sulfate 8mg 0.4mg/ml 20ml MDV 10/pk (39220mcg)	0.0935 vial	0.1 vial	0.05 vial	0.05 vial	\$0.0000	\$0.0000
Avastin 100mg 25mg/ml 4ml SDV (10249231)	10 vial	2.34 vial	1.17 vial	1.17 vial	\$0.0000	\$0.0000
Avastin 400mg 25mg/ml 16ml SDV (10249232)	1 vial	3.9525 vial	1 vial	1.9525 vial	\$0.0000	\$0.0000
Carboplatin 600mg 10mg/ml 60ml MDV (10034851)	0 vial	10.74 vial	0.1667 vial	1.675 vial	\$0.0000	\$0.0000
Cinvanti 130mg/18ml Inj SDV (10239320)	0 vial	32 vial	1 vial	3 vial	\$0.0000	\$0.0000
Cyanocobalamin 1000mcg/ml 1ml MDV 25/pk (10048601)	0 vial	26.001 vial	1 vial	10.001 vial	\$0.0000	\$0.0000
Cyclophosphamide 1gm 200mg/ml 5ml Sol MDV (10251659)	0 vial	2 vial	1 vial	1 vial	\$0.0000	\$0.0000
Cyclophosphamide 1gm Powder SDV (10145698)	0 vial	1 vial	1 vial	1 vial	\$0.0000	\$0.0000
Cyclophosphamide 500mg 200mg/ml 2.5ml Sol MDV (10251690)	0 vial	1.408 vial	0.424 vial	0.984 vial	\$0.0000	\$0.0000
Cyclophosphamide 500mg Powder SDV (10145810)	2 vial	3.06 vial	3.06 vial	3.06 vial	\$0.0000	\$0.0000
Darzalex 100mg 20mg/ml 5ml SDV (10241638)	10 vial	15.4 vial	1.33 vial	5.38 vial	\$0.0000	\$0.0000

**Product Expiration Report** 

Displays upcoming expiration dates for assigned medications.

## **Product Expiration**

<u>Demonstration</u>	Total Expired Products	Product Expiring Soon
2801 Horace Shepard Drive,	0	5
Dothan, AL 36303		

Date: 11/1/2019 to 11/30/2019 11:59:00 PM

Product Name/ID	Expiration Date	Lot Number	Qty On Hand	NDC - Formulary	Position Name
OSC-Helpdesk1					
Aloxi 250mcg 0.25mg/5ml SDV (51528)	11/08/2019	2345	2 vial	62856-0797-01	Virtual 2 - Position 1
Carboplatin 150mg 10mg/ml 15ml MDV (28735)	11/14/2019	ccc123	9 vial	61703-0339-22	Virtual 1 - Position 17
OSC-Helpdesk2					
Rituxan 100mg 10mg/ml 10ml SDV (10152)	11/15/2019	bbb333	22 vial	50242-0051-21	Door 4 - Position 1
Rituxan 100mg 10mg/ml 10ml SDV (10152)	11/15/2019	aaa123	22 vial	50242-0051-21	Door 4 - Position 1
OSC-HelpDesk3					
Aloxi 250mcg 0.25mg/5ml SDV (51528)	11/22/2019	123abc	2 vial	62856-0797-01	Fridge 1 - Position 6
	Env	l of Donout			

Shrinkage Report

Summary of actual inventory against projected inventory to show inventory loss.

Shrinkage Report	Start Date:	11/21/	2016	End Date:	11/21/2	016								
ProductName/ID	Cost Each	UOM	Starting	Starting Cost	Credits	Credit Cost	Debits	Debits Cost	Projected	Projected Cost	Ending	Ending Cost	Shrinkage	Shrinkage Cost
Helpdesk Testing														\$-1,784.62
OSC-HelpDesk5														\$-1,784.62
Acetaminophen 325mg Tabs 1000/pk (37143)	\$0.0149	tab	3,798	\$56.63	0	\$0.00	0	\$0.00	3,798	\$56.63	3,793	\$56.55	-5	\$-0.07
Alimta 100mg Lyophilized Powder SDV(31106)	\$599.4500	vial	11	\$6,593.95	0	\$0.00	0	\$0.00	11	\$6,593.95	8	\$4,795.60	-3	\$-1,798.35
Avastin 100mg 25mg/ml 4ml SDV 0060(24580)	\$671.9300	vial	0.99	\$665.21	5	\$3,359.65	-3	\$-2,015.79	2.99	\$2,009.07	3	\$2,015.79	0.01	\$6.72
Carboplatin 50mg 10mg/ml 5ml MDV (27544)	\$8.8600	vial	12.1	\$107.21	0	\$0.00	0	\$0.00	12.1	\$107.21	12.9	\$114.29	0.8	\$7.09
Grand Total:	\$-1,784.62													

Clinic Charge and Discrepancies Reports

## **Clinic Charge Cost Statement**

History of clinic charge transactions that have occurred including product details. Financial and non-financial versions available.

## **Discrepancies**

All transactions that caused discrepancies within a specified date range.

Acetaminophen 325mg Tabs 1000/pk (37143)	\$0.0149	tab	3,798	\$56.63	0	\$0.00	0	\$0.00	3,798	\$56.63	3,793	\$56.55	-5	\$-0.07

\*Item is from Shrinkage Summary Report



#### **Clinic Charge Cost Statement**

Demonstration 2801 Horace Shepard Drive Dothan, ALABAMA 36303 ber of Clinic Charges To

so oz

Date: 11/21/2016 to 11/21/2016 11:59:59 PM

Product Name/ID	<u>Amount</u>	Qty Before	Qty After	<u>User Name</u>	Trans Date/Time	Cost(each)	Cost(Total)
Helpdesk Testing							
OSC-HelpDesk5							
Acetaminophen 325mg Tabs 1000/pk (37143)	5 tab	3,798 tab	3,793 tab	Nucleus Support, TCaldwell	11/21/2016 4:03:24 PM	\$0.01	\$0.07
Notes: Employee Use							

Total Cost for OSC-HelpDesk5: 5

Carboplatin 50mg 10mg/ml 5ml MDV \$8.8600 vial 12.1 \$107.21 0 \$0.00 0 \$0.00 12.1 \$107.21 12.9 \$114.29 0.8 \$7.09 (27544)

<sup>\*</sup>Item is from Shrinkage Summary Report



Demonstration

#### **Discrepancies**

Group by Clinic, Station, Patient

Total Transactions

2801 Horace Shepard Drive Dothan, ALABAMA 36303

Transaction Date: 11/21/2016 to 11/21/2016 11:59:59 PM

Expected: 99 mg

# Helpdesk Testing OSC-HelpDesk5 \*\*\*Non-Patient Activity\*\*\*

Door 3 ~ Pos 7 By: Nucleus Support, TCaldwell Actual: 100 mg

ttepanty neason: Expired Diag

40 mg Audit Product: Carboplatin 50mg 10mg/ml 5ml MDV (27544) Class: Medication Trans Date: 11/21/2016 3:57:57 PM NDC #: 61703-0339-18 Lot #: abc456

Door 2 ~ Pos 1 By: Nucleus Support, TCaldwell Actual: 645 mg Expected: 605 mg

Discrepancy Reason: Overfill Adjustment

Discrepancy Notes: Overfill Adjustment Overfill on MDV

9

Billing Reconciliation by Patient Report

Total amounts dispensed over a time period by patient and item.



### **Billing Reconciliation by Patient**

Transaction Date: 05/16/2016 to 05/16/2016

Drug Name	ltem ID	JCode	Patient Info	Billing Unit	Billable Units	Remove Amt	UOM	Date/Time
Demonstration Practice								
12345ST1								
Abraxane 100mg Lyophilized Powder SDV	25813	J9264	Test, Taylor (42806)	1	200	200	mg	5/16/2016 4:26:40 PM
					200	200		
Aloxi 250mcg 0.25mg/5ml SDV	34026	J2469	Test, Test (41486)	25	10	250	mcg	5/16/2016 9:23:57 AM
					10	250		
Cyanocobalamin 1000mcg/ml 1ml SDV 25/pk	10067	J3420	Test 1, Test (785)	1,000	1	1,000	mcg	5/16/2016 4:56:19 PM
Cyanocobalamin 1000mcg/ml 1ml SDV 25/pk	10067	J3420	Test 2, Test (285)	1,000	1	1,000	mcg	5/16/2016 2:11:23 PM
Cyanocobalamin 1000mcg/ml 1ml SDV 25/pk	10067	J3420	Test 3, Test (16333)	1,000	1	1,000	mcg	5/16/2016 6:04:39 PM
					3	3,000		

