IV Pump Deployment Plan

CareFusion/Alaris IV Pump Project

Go Live Date: April 26th, 2016

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Guiding Principles

The goal of the Infusion Pump Project is to design and implement a medical-grade network of infusion pumps that is secure, efficient, scalable, reliable and wirelessly-networked. This system of infusion pumps will replace the three types of pumps currently in use.

Phase I April 26, 2016: Pump replacement (Including wireless connectivity, automated drug library, and other safety features)

- Replacement of LV, Syringe, and Pain pumps on integrated platform
- Replacement of IV administration sets
- Release of an automated drug library based upon the UVA formulary.
- Ability to make real time updates to the drug library.

Phase II 6-9 Months after Phase I is Complete: Bi-directional integration with Epic (Connectivity to CPOE, Automated programming of pumps, Automatic documentation of infusion medication administration, etc.)Synopsis of Go Live Model (Pre-deploy, Day of Deploy, Post deploy).

Roles/Responsibilities of Team Members

Directors/Manages/UBLs – Take an active role in the transition plan for your unit. Ensure readiness by ensuring that staff have attended training, are completing the Competency Verification Report (CVR) by May 26, 2016 (1 month after go-live), ensure Super Trainers are available to lead the unit based transition during Go-Live and for the first 24 hours, support your team through the change process that accompanies new technology.

- **Complete the 'Are You Ready' Checklist Prior to Go Live (*Attachment A*)**

All Clinical Staff – Work safely using our Be-Safe methodologies as we implement this change. Be prepared for the change by ensuring training is complete and that Super Trainers are present on your units. Support your team members on what will be a very busy day across the Health System. Minimize patient impact and recognize that our patients and their family members will be aware of this change.

Use the Help Chain Support as needed to resolve issues. The help chain includes:

1. Super Trainers on your unit.
2. CareFusion Clinical Support
3. IV Pump Command Center

Project Team – The project team will deploy pumps and modules in accordance with the schedules attached, staff an IV Pump Command Center on the day of Go-live, Coordinate Training and Clinical Support, Communicate Go-Live materials and coordinate replacement of supplies as needed to support the transition.

CareFusion Clinical Support – CareFusion will provide Clinical Support 24 hours per day for 7 days after Go-Live (Contact information detailed below). The Clinical Support Specialist can be reached via phone for questions and will be available to respond to concerns that cannot be addressed by unit based Super Trainers.

Pharmacy Team – Lead the organization through the planning and adoption of the drug library, transition pharmaceuticals in the Pyxis as needed to support the Go-Live, assist units on the day of Go-Live to modify/change orders as needed, evaluate recommendations for changes to the drug library based upon organizational standards and safety best-practices, and communicates changes to the library when needed.

Deployment/Cart Teams – Deliver pumps, supplies, and lock boxes to inpatient units in accordance with pre-established schedule. Assist unit based staff including Directors, Managers, Subject Matter Experts (SME), Clinical Specialist and front line personnel in the transition to the new pumps. Deployment teams should not work autonomously to change any devices but support unit based team members.

Supply Change Team – Analyze supply usage, cross reference tubing as needed to support the change, work in collaboration with the Deployment Team to replace supplies needed for the new IV pumps, communicate with end-users related to the ordering of supplies to ensure go-live readiness.

Communication Strategy – Day of Go Live

A command center will be operating in Room G103 during Go Live. The command center will track the overall progress of the deployment and coordinate resources to effectively manage the transition. The Command Center will update Unit Based Leadership via email throughout the day with lessons learned from early deployments.

Command Center Phone Number: 434-760-5132

Command Center Team

The command Center team will be located in Room G103 (UH Basement). This will be the hub for all activity during the Go Live operation. The Command Center will open at **5:00am** on April 26th and provide continued support until **7:00pm** that evening. Follow on support can be achieved by calling the local CareFusion Representative noted in the section below.

Command Center – G103
Andrea Caulfield – Clinical Lead
Michael Friesen – Clinical Engineering
Michelle McCarthy - Pharmacy
Barbara Strain – Supplies
Colin Bonner – Project Management

CareFusion Go Live Support

CareFusion Personnel are available both during the go live and following week.

Focused support for Go Live will be provided to support the transition in the ED, OR, PICU/NICU areas and Transitional Care Hospital (TCH).

Ongoing Clinical support is provided by CareFusion Personnel 24 hours a day for 7 days to assist all users in resolving complex issues. See the attached Post Go Live Support Flier (***Attachment B***) for details.

Deployment Model

Specialty Deployment Areas

Friday, April 22nd, 2016 – Tuesday, April 26th, 2016

The IV pump team will be deploying pumps to Specialized Deployment Areas. Pumps should not be placed in-use prior to April 26th. **Clinical Support is available for the new pumps beginning at 5:00 am on April 26th.**

Specialty Deployment Areas

Unit/Area	Date	Approx. Arrival Time	Number of Pumps			
			PCU	Large Vol	PCA	Syringe
Nursing Prof. Dev. Services	22-Apr	5pm	16	16	16	16
Transitional Care Hospital (TCH)	25-Apr	3pm	40	60	4	0
Hospice (TCH)	25-Apr	3pm	10	20	4	0
Stress Lab	25-Apr	4pm	2	2	0	0
OR/Anesthesia	25-Apr	5pm	52	93	2	12
Digestive Health (Endoscopy)	25-Apr	5pm	5	5	0	3
Angio (Interventional Radiology)	25-Apr	5pm	17	17	4	0
Neuro-Radiology	25-Apr	5pm	5	10	0	0
Radiology Recovery (Rad Nursing)	25-Apr	5pm	2	2	0	1
Battle Building OR	25-Apr	5pm	12	14	0	2
Adult Infusion Center (ECCC)	25-Apr	7pm	35	59	0	0
8 West/ Stem Cell (LVP Only)	25-Apr	7pm	36	72	0	0
PACU	26-Apr	4am	20	20	20	0
SAS	26-Apr	4am	5	5	0	0
Short Stay Unit	26-Apr	5am	20	20	5	0
CTU	26-Apr	5am	10	20	0	0
Cath Lab	26-Apr	5am	10	20	0	0
Electrophysiology (EP) Lab	26-Apr	5am	8	16	0	0
ED	26-Apr	5am	50	75	10	6
Ped's Acute (7 Central & 7 West)	26-Apr	6am	26	34	2	16
Peds Infusion Center (Battle Bld)	26-Apr	7am	12	23	0	6
Outpatient Pediatrics (Battle Bld)	26-Apr	7am	2	4	0	2
Eye Clinic (West Complex)	26-Apr	7am	2	4	0	2
NICU	26-Apr	10am	45	45	0	90
PICU	26-Apr	12pm	25	22	1	50

Pump Replacement Steps in Specialty Deployment Areas

1. Pumps Delivered to Specialty Areas (Please identify staging area if needed).
2. Unit deploys pumps to meet patient needs. (See your unit listed above for details).
3. Collect Legacy Alaris 'blue' pumps and legacy supplies for pick-up by the Pump Deployment Team.
4. Once the last pump has been replaced, please have the unit based leader call the command center to confirm completion.

Inpatient Conversion Areas

Tuesday, April 26th, 2016

As of **7:00am** on April 26th Inpatient Conversion will commence. Clinical Support resources are available and the Command Center will be open in G103.

Leaders should pull unused old pumps, syringe pumps and CADDs from patient rooms and storage areas to the soiled utility rooms.

All Service Tracking pump orders after **7:00am** will be filled with the new pumps. See ***Attachment C*** for ordering details.

Following the schedule below, teams will arrive with the estimated complement of devices for your unit. The team will assist you in coordinating the swap of pumps, following the guidelines described below:

- Continuous Infusions/Fluids will be swapped out as soon as possible.
- Intermittent, Hazardous, or Chemotherapy Infusions and TPNs should continue and be swapped out when the next dose is due.
- Continuous Controlled Substances will be swapped out in consultation with your unit pharmacist. (Follow existing practice for wasting controlled substances.)
- See below for detailed description of change out procedures (Pharmacy Workflow).

New PCA starts after **10:00am** should be started on the new IV pumps. If this occurs prior to the Deployment Team arrival, call the command center for assistance.

Please note all of these times are approximate. Project Team will inform units of any changes to the schedule.

In Patient Deployment Areas

Time Frame	Team 1 ED	Team 3 3rd Floor	Team 4 4th Floor	Team 5 5th Floor	Team 6 6th Floor	Team 7 PICU/NICU	Team 8 8th Floor
7:30am	ED	3 West	4 TCVPO	5 Central	6 East		8 Central (LDR) 8 North
8:00am							
8:30am							
9:00am							
9:30am		3 Central	4 CCU	5 West	6 NNICU		
10:00am							8 West (PCA/Syringe)
10:30am							
11:00am							
11:30am		3 East	4 West	STBICU			
12:00pm						7 West	
12:30pm					6 Central		
1:00pm		3 MICU					
1:30pm			4 East				
2:00pm				5 North		7 Central	
2:30pm					6 West		
3:00pm							
3:30pm		3 Renal	4 Central			7N PICU	
4:00pm							
4:30pm							
5:00pm							
5:30pm						7E NICU	
6:00pm							
6:30pm							

Cart Teams

Team 1 - ED	**Team 3 - 3rd Floor**	**Team 4 - 4th Floor**	**Team 5 - 5th Floor**	**Team 6 - 6th Floor**	**Team 7 - PICU/NICU**	**Team 8 - 8th Floor**
*Cart Team/**Lead***	*Cart Team/**Lead***	*Cart Team/**Lead***	*Cart Team/**Lead***	*Cart Team/**Lead***	*Cart Team/**Lead***	*Cart Team/**Lead***
Karen Braden	***Paul Merrel*** *Don Demarco*	***Holly Hintz*** *JT Hall*	***Beth Quatrara*** *Leigh Gauriloff*	***Susan DiGuilio*** *Sue Galloway*	***Lauren Turner***	***Lisa Huntsinger***
CareFusion	*CareFusion*	*CareFusion*	*CareFusion*	*CareFusion*	*CareFusion*	*CareFusion*
Frank Luther/ Craig DeBold	*Mike Calabrese*	*Jim Espisto*	*Virginia Kennihan*	*Beth Shuba*	*Leanne Castro (PICU/NICU)*	*Bill Brandt*
C.E. Engineer	*C.E. Engineer*	*C.E. Engineer*	*C.E. Engineer*	*C.E. Engineer*	*C.E. Engineer*	*C.E. Engineer*
Mark Seago	Sharon Wray	Patrick Headley	Tea Arapovic	Michael Fraticelli	Avinash Konkani	Sherri Wood
Pharmacy	*Pharmacy*	*Pharmacy*	*Pharmacy*	*Pharmacy*	*Pharmacy*	*Pharmacy*
Emily Monds	*Brian Kempin*	*Meghan Reese*	*Chrissie Shirley/ Tyler Chanas*	*Elizabeth Snipes/ Amanda Zomp*	*Kevin Lonabaugh/ Nhi Nguyen*	*Jeremy Sen/ Julie Kelsey/ Thomas Schultz*
Super Trainer:	*Super Trainer:*	*Super Trainer:*	*Super Trainer:*	*Super Trainer:*	*Super Trainer:*	*Super Trainer:*
Provided by Unit	*Provided by Unit*	*Provided by Unit*	*Provided by Unit*	*Provided by Unit*	*Provided by Unit*	*Provided by Unit*

Detailed Schedule of Events

Pump Replacement steps on in-patient units:

1. Manager (or Delegate) assumes a leadership role for their unit, readies unit for change out of IV Pumps at scheduled time, is present to work with Super Trainers, and Deployment Team to assist in swap.
2. Super Trainer(s) to prioritize patients for transition to new pumps.
3. Deployment team members arrive on Unit with Cart, Pumps & Supplies.
4. Distribute Pumps throughout Unit based on Manager and Super Trainer direction.
5. The deployment team will leave new pumps on unit for patients that cannot be transitioned while the team is present.
6. Place all remaining legacy Alaris 'blue' pumps (including CADDs and Syringe pumps) in soiled utility room. Clinical Engineering will be rounding throughout the day to pick up old pumps.
7. Once the last pump has been replaced, please have the unit based leader call the command center to confirm completion.

Pharmacy Workflow

Please see table below for strategy around swapping out IV Pumps based on the Infusion type on patient.

Infusion type	Considerations
Continuous Infusion (non-controlled substance)	Pump exchange should occur as soon as practical to expedite conversion to new pump. Replacement infusions can be requested using the medication messaging process from your Epic MAR
CADD - Epidural	No change
Factor Products	Complete the infusion administration prior to changing the pump
Intermittent Infusions	Complete the infusion administration prior to changing the pump
Total Parental Nutrition (TPN)	Complete the infusion administration and change pump with the standard hang-time for that day's bag
Pediatric controlled substance syringes (PICU/NICU)	Pump exchange will occur with standard line exchange time for these units
CADD Conversion (non-epidural controlled substances)	**Continuous Infusions:** • Ensure that order has been reentered into Epic for your patient by the MD (contact your unit's pharmacist as needed) • Obtain replacement controlled substance infusion from Pyxis • Obtain both keys needed for CADD and for Alaris from Pyxis • Obtain lock-box • Replace CADD pump infusion with Alaris Smart Pump • Lock controlled infusion bag in lock-box • Once new infusion has been initiated, waste remaining volume of CADD following standard work for controlled substance wasting • Document waste of controlled substance in Pyxis • Return CADD key to Pyxis • Return Alaris key to Pyxis **Patient Controlled Analgesia (PCA):** • All new PCA orders after **10:00am** should be on the new PCA Alaris pump. • Ensure that order has been reentered into Epic for your patient by the MD (contact your unit's pharmacist as needed) • Obtain replacement controlled substance PCA Syringe from Pyxis • Obtain CADD and PCA key • Replace CADD PCA with Alaris Smart Pump PCA module • Once Alaris PCA has been initiated, waste remaining volume of CADD following standard work for controlled substance wasting • Document waste of controlled substance in Pyxis • Return CADD key to Pyxis • Return Alaris key to Pyxis

Workflow Changes to Nurse Practice – Lockboxes

Due to the new IV Pumps, UVAHS now requires the use of Lockboxes for Continuous Controlled Substance Infusions. Use of the lockbox is required UNLESS:

A. Unstable patient that requires constant supervision outside of an ICU setting (i.e. ED trauma) that will be transported to an ICU

B. Anesthesiologist/ Resident in attendance of a patient being admitted to the ICU.

Patients who do not fit in these categories would require a lockbox for their continuous controlled substance infusions upon admission. Please see ***Attachment D*** below for additional details.

Supply/Tubing Conversion

Inpatient and other departments serviced by the Medical Center Storeroom Clerk staff: Tubing will be switched out by the storeroom personnel in accordance with the deployment plan. Old tubing will remain on site during the day of Go Live only as a safety precaution.

- The pump deployment team will be delivering tubing needed for conversion with your pumps.

Outpatient Clinics and other departments NOT directly serviced by the Medical Center Storeroom Clerk staff: Use the new bin numbers in the attached guide (***Attachment E***) to cross reference old products to new supplies. Place orders through the ePro system, no later than COB Wednesday, April 20th. Please order no more than one week worth of supplies (to prevent an initial shortage of tubing during the influx of anticipated orders). Please place old tubing with the old 'Blue' IV Pumps and we will remove the tubing along with the old pumps at a later date.

- The pump deployment team will be delivering both startup and an initial par of tubing for your department.

Clinical Support after Go-Live

Following April 26th Go Live, CareFusion will provide around the clock coverage for the next seven days. They can be contacted via the phone numbers listed below. A flyer will be provided for posting on your unit as well as listed as ***Attachment A*** below.

Date	Day	Start Time	End Time	CareFusion Clinical Support Person	Local Support Phone Number
4/26/2016	**Tuesday**	7:00	19:00	Frank Luther	434-760-5131
4/26/2016	**Tuesday**	19:00	7:00	Virginia Kennihan	434-465-7568
4/27/2016	**Wednesday**	7:00	19:00	Frank Luther	434-760-5131
4/27/2016	**Wednesday**	19:00	7:00	Virginia Kennihan	434-465-7568
4/28/2016	**Thursday**	7:00	19:00	Frank Luther	434-760-5131
4/28/2016	**Thursday**	19:00	7:00	Virginia Kennihan	434-465-7568
4/29/2016	**Friday**	7:00	13:00	Frank Luther	434-760-5131
4/29/2016	**Friday**	13:00	19:00	Henry Pena	434-760-5131
4/29/2016	**Friday**	19:00	7:00	Deb DeCarlo	434-465-7568
4/30/2016	**Saturday**	7:00	19:00	Henry Pena	434-760-5131
4/30/2016	**Saturday**	19:00	7:00	Deb DeCarlo	434-465-7568
5/1/2016	**Sunday**	7:00	19:00	Henry Pena	434-760-5131
5/1/2016	**Sunday**	19:00	7:00	Deb DeCarlo	434-465-7568
5/2/2016	**Monday**	7:00	19:00	Henry Pena	434-760-5131
5/2/2016	**Monday**	19:00	7:00	Deb DeCarlo	434-465-7568
5/3/2016	**Tuesday**	7:00	12:00	Frank Luther	434-760-5131

Frequently Asked Questions

We have compiled a list of Frequently Asked Questions (FAQs) for both In-Patient and Out-Patient Areas. These can be found as ***Attachment F*** and ***Attachment G,*** respectively.

Cleaning of your New Alaris Equipment

Follow hospital/unit guidelines for cleaning equipment. See ***Attachment H*** for a detailed review of the pump cleaning recommendation.

Attachment A: "Are You Ready?" Go Live Checklist

Unit Preparations for Go-Live Day:	
Important things to prepare for a successful IV Pump Go-Live Day:	
1. Managers meet ahead of go-live day with your Super Trainers to identify a Lead Super Trainer for the day of go-live.	
a) Review Lead Trainer responsibilities for leading the unit team	
b) Know the time of the anticipated cart time for your unit	
c) Setting the pace of and delegating activities listed below	
d) Place flyers to CareFusion Support Line and Command Center at front desk on the day of implementation as reference tools	
CareFusion Support Line: 434-760-5131 (7am – 7pm) 434-760-7568 (7pm – 7am)	
Command Center line: 434-760-5132	
2. Manager with Lead Super Trainer develop a plan for the day that addresses:	
a) Team organization: number of teams to switch out pumps and define what they are going to be doing	
b) Removal of all unused "blue" Alaris and PCA CADD from patient care areas at the beginning of the go-live day.	
a. Cleaning of the "blue" and PCA CADD pumps before placing in Soiled Utility Room	
c) Pharmacy submission of requests for those medicated infusion bags for patients that come from Pharmacy at least two hour prior to cart arrival on your unit via medication messaging process from the Epic MAR.	
d) Prepare for changeover by placing non-Pharmacy infusion and medicated infusion bags at the patient bedside to minimize un-necessary steps at the time of change over to the pump.	
e) Categorize and keep track of patient IV module needs based on priority of switch out (list out where patients are on your unit): NO RESPIKING OF BAGS Per Infection Control is to occur. Use attached overview of switch outs based on infusion types (attachment A).	
I. Patient name and room who have simple infusions to be switched out	
II. Patient name and room who may have	

medicated infusions requiring double checks i.e. high alert drugs/narcotic bag changes/ lock box application	
III. Patient name and room who will require unit Pharmacist involvement(PCA CADD to PCA module) may want to involve them sooner than later	
IV. Patient name and rooms who may not be able to be immediately switched out due to medication but will be by the end of the day. Cart team will leave modules to accommodate late switch out.	
3. The Lead Super Trainer will meet and greet the Cart Team. The Lead Super Trainer would be the source of information for Cart Team on what the PC unit and module needs of the unit are for the switch out.	
4. Removal of "blue" pumps and PCA CADDs from patient rooms. The unit team will need to clean them prior to placing them in soiled utility room.	
5. The role of the Cart Teams will be to bring PC unit and Modules to the patient rooms. They will not be involved with the actual switch out of the pumps. This is for the unit team to with their patients.	
6. Team Super Trainers will serve as the double checks for medicated infusion requiring double checks when wasting or verification is needed.	
7. Super Trainers will be involved in checking off the staff on their Competency Verification Forms (CVR) once the pumps are settled on their unit.	
8. The unit upon completion of the change out will inform the command center that all pumps have been converted over to the new pump.	

Attachment B: Post Go Live Support Flyer

University of Virginia

CareFusion Clinical Support Coverage Period:

Tues. 4/26 7:00 AM – Tues. 5/3 12:00PM

7:00AM to 7:00PM Call 434-760-5131

7:00PM to 7:00AM Call 434-760-7568

CareFusion

Attachment C: Ordering New Pumps via Service Tracking

Ordering the new CareFusion IV pumps is done through Service Tracking. Please note that due to the way the pumps work with brains and modules, you will need to order each part of the pump separately. I.e. If you used to order a single channel IV pump in the past, then you would now need to order a PC Unit (White Brain Module) and a Large Volume Module (Blue Slave module).

This is how they are listed in Service Tracking:

IV Pump – PC Unit (White)	
IV Pump – Lg. Volume (Blue)	
IV Pump – Syringe (Grey)	
IV Pump – PCA (Purple)	

Attachment D: Lockbox Use with New IV Pumps

When to use:

Lock boxes will be used in conjunction with large volume (LVP) module for **continuous infusion of controlled substances**. Pharmacy will designate on MAR that a lock box and no port tubing are required with specific infusions. Patients that are transported from OR and ED to an ICU will to have infusion locked in box at time of admission.

How to Use:

1) Open the box
2) Align the clamps on the inside of the box with your pole. Holding the box with your four fingers and the pole with your thumb, press firmly until the clamps wrap around the pole.
3) Hang the IV on the hook inside the Lockbox
4) Lock the IV box door

*****The box will hold up to two IV bags (100cc a piece)

Cleaning Guidelines:

** Ensure Lock boxes are left UNLOCKED so that they can be cleaned. **

Lock boxes will be cleaned by environmental services as with all other room equipment in the patient's room.

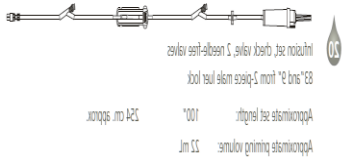
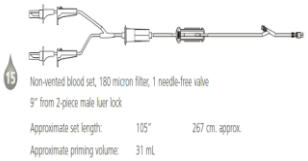
Management of the Lock Box:

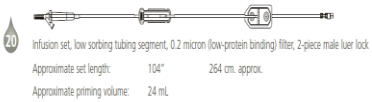
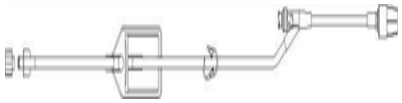
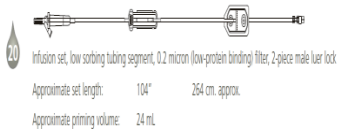
Each unit will delivered lock boxes based upon need as part of the deployment. Units will be responsible for managing their lock boxes. The lockboxes are considered to be part of unit equipment. Replacement of lock boxes can be done by requesting them through the Storeroom.

Attachment E: Ordering Supplies - Old vs. New

IV Sets and Accessories Catalog - Dedicated

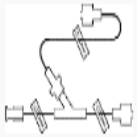
Updated: April 19, 2016

Current Storeroom #	Current Product	New Storeroom #	UVA Description	New Product	Areas to be stocked
97240 **93271**	**72023E** 	**97250**	**Tubing IV Pump Primary**	**2426-0007** **(Primary)** Alaris Pump Module set Check Valve Roller, Slide Clamp(s) **3 SmartSite needle-free valve(s)** 6", 74", 90" (1 above pumping segment and 2 below) from 2-piece Male Luer Lock. Not Made with DEHP. 20 Drop L: 126 in L: 320 cm PV: 26 mL Fluid Path Sterile	**Everywhere**
97241 **93274**	**72980E**  15 Non-vented blood set, 180 micron filter, 1 needle-free valve 9" from 2-piece male luer lock Approximate set length: 105" 267 cm. approx. Approximate priming volume: 31 mL	**97251**	**Tubing IV Pump Blood Infusion**	**2477-0007** Alaris Pump Module set Non-Vented **Blood Set** 180 Micron Filter Roller, 2 Slide Clamp(s) 1 SmartSite needle-free valve(s) 65" (below pumping segment) from 2-piece Male Luer Lock. Not Made with DEHP. 15 Drop L: 121 in L: 308 cm PV: 33 mL Fluid Path Sterile	**Inpatient** **Anesthesia** ***Do NOT stock in NICU**
97243 **99415**	**72953** 20 Infusion set, low sorbing tubing segment, 2-piece male luer lock Approximate set length: 110" 279 cm. approx. Approximate priming volume: 22 mL	**97257**	**Tubing Low Sorbing Short Set**	**11426964** **(Low Sorb Short Chemo Set for Oncology Areas ONLY)** Alaris Pump Module set **Low Sorbing** Roller Clamp(s) 2-piece Male Luer Lock. Not Made with DEHP. 20 Drop L: 47 in L: 120 cm PV: 15 mL Fluid Path Sterile	**Oncology Areas** **ECCC** **Battle** **7 Acute** **8 West** **Stem Cell** **Hope**

97242	**72923**  	**97258**	**Tubing Low Sorb EXT 0.2 Filter**	**20350E** **(Add On Low Sorb Extension Set w/ 0.2 Micron Filter for Oncology Areas ONLY)**  **Extension set Low Sorbing 0.2 Micron Filter** (1.72 sq. in Low Protein Binding) Pinch Clamp(s) 1 SmartSite needle-free valve(s) 6" from Spin Male Luer Lock. Not Made with DEHP. L: 17 in L: 43 cm PV: 5 mL Fluid Path Sterile	**Oncology Areas** **ECCC** **Battle** **7 Acute** **8 West** **Stem Cell** **Hope**
97244	**Currently using Secondary Set** **Codan**	**97261**	**Tubing IV Pump Secondary** (Description update only)	**2204-0007** **(Short Chemo Set for Oncology Areas ONLY)** Alaris Pump Module set Roller Clamp(s) 2-piece Male Luer Lock. Not Made with DEHP. 20 Drop L: 47 in L: 119 cm PV: 14 mL Fluid Path Sterile	**Everywhere**
99416 **97242**	**72923**  	**97259**	**Tubing Low Sorbing Primary Set**	**24600-0007** **(Low Sorb 3-Port Set for Oncology Areas ONLY)** **No Image Available** Alaris Pump Module set **Low Sorbing** Check Valve Roller Clamp(s) **3 SmartSite needle-free valve(s)** 6", 66", 88" (1 above pumping segment and 2 below) from 2-piece Male Luer Lock. Not Made with DEHP. 20 Drop L: 120 in L: 304 cm PV: 25 mL Fluid Path Sterile	**Oncology Areas** **ECCC** **Battle** **7 Acute** **8 West** **Stem Cell** **Hope**

93272 **Delete from Stock**	**72103E** 			**Removed from Stock**	
Replacing **93293** **93295**	**N/A**	**97252**	**Tubing IV Pump Narcotic No Port**	**2200-0500** **(No Port Set for Use w/ Bag Based Narcotics)** Alaris Pump Module set Roller Clamp(s) 2-piece Male Luer Lock. 20 Drop L: 109 in L: 277 cm PV: 23 mL Fluid Path Sterile	**Inpatient and Procedural areas**
	N/A	**97253**	**Tubing IV Pump Syringe PSD**	**10014914** **(Pressure Sensing Disc for NICU/Anesthesia ONLY)** Alaris Syringe Module set Microbore **Pressure Sensing Disc** Slide Clamp(s) Fixed Male Luer Lock. Not Made with DEHP. L: 60 in L: 152 cm PV: 0.7 mL Fluid Path Sterile	**NICU and Anesethia only**
	N/A	**97254**	**Tubing IV Pump Syringe 0.2 PSD**	**10014916** **(Pressure Sensing Disc w/ 0.2 Micron Filter for NICU/Anesthesia ONLY)** Alaris Syringe Module set Microbore **Pressure Sensing Disc 0.2 Micron Small Volume Filter** (0.25 sq. in Low Protein Binding) Slide Clamp(s) Fixed Male Luer Lock. Not Made with DEHP. L: 60 in L: 152 cm PV: 1 mL Fluid Path Sterile	**NICU and Anesethia only**

N/A	**N/A**	**97260**	**Tubing Low Sorbing Syringe Set**	**C20014** **(For 8W/Stem Cell ONLY)** Extension set Low Sorbing 2-piece Male Luer Lock. Not Made with DEHP. L: 30 in L: 76 cm PV: 4 mL Fluid Path Sterile	**8W** **Stem cell**
N/A	**N/A**	**97255**	**Tubing IV Pump Syringe Adaptor**	**10010483** **(Syringe Adapter Set for Syringe Infusion via LVP – for Anesthesia ONLY)** Alaris Pump Module set **Syringe Adapter** Smallbore Slide Clamp(s) 2-piece Male Luer Lock. Not Made with DEHP. L: 82 in L: 208 cm PV: 4 mL Fluid Path Sterile	**Anesthesia**

	Alaris PCA Module				
Current Storeroom #	**Current Product**	**New Storeroom #**	**UVA Description**	**New Product**	**Areas to be Stocked**
93293	**21-7047-24** CADD® Extension Set with male luer, clamp, and integral anti-siphon valve with male luer 60"	**97256**	**Tubing PCA IV Pump**	**30873** Alaris PCA Module set Microbore Check Valve Anti-Siphon Valve 2 Pinch Clamp(s) Y-Connector 2 Female Luers 7" from Fixed Male Luer Lock. Not Made with DEHP. L: 90 in L: 229 cm PV: 3 mL Fluid Path Sterile	**Everywhere**
93295	**21-7092-24**  CADD® Extension Set with male luer, integral anti-siphon valve with male luer, y -extension with one-way female checkvalve, and clamps 68"	**97256**	**Tubing PCA IV Pump**	**30873** Alaris PCA Module set Microbore Check Valve Anti-Siphon Valve 2 Pinch Clamp(s) Y-Connector 2 Female Luers 7" from Fixed Male Luer Lock. Not Made with DEHP. L: 90 in L: 229 cm PV: 3 mL Fluid Path Sterile	**Everywhere**
Not currently carried at UVA	**30843E** PCA extension set, smallbore tubing segment, check valve, 1 needle-free valve 7" from 2-piece male luer lock Approximate set length: 13" 33 cm. approx. Approximate priming volume: 1 mL DEHP			**30873** Alaris PCA Module set Microbore Check Valve Anti-Siphon Valve 2 Pinch Clamp(s) Y-Connector 2 Female Luers 7" from Fixed Male Luer Lock. Not Made with DEHP. L: 90 in L: 229 cm PV: 3 mL Fluid Path Sterile	

Attachment F: Frequently Asked Questions – In-Patient Areas

University of Virginia Health System, Alaris® System Implementation

Go-Live Questions

When are we converting from our old technology to the Alaris® System?

The Go Live date for converting from our old technology to the Alaris® System is April 26, 2016. Some departments will receive their pumps either the evening before go-live or early the next morning day of go-live to allow them to start their first patients of the day with the new Infusion Pumps.

Command Center number for go-live day is 434-760-5132 for questions that may come up.

I was not able to attend training, what should I do?

Complete the CBL that can be found in NET LEARNING under Alaris pump and review the training video with an Infusion pump follow along with the instructor. A Super Trainer will need to check you off as having completed the teaching points for each module.

What if I have an unstable patient when it is time to change over devices?

If there is any instability with your patient at the time to change over the patient to the new devise, we want you to take the necessary steps ensuring patient safety. Wait until there is a better time to transition the over patient to the new pumps.

Where can I find resources for questions about the device?

Each pump will come equipped with the Quick Reference cards for the pump and modules.
Each of the units has designated Super Trainers to help their peers with questions about the device.
The pump library can be found on the pharmacy website.

Starting on Go Live there will be a CareFusion Specialist available for the next 7 days 24 hours a day who can be reached at:

- **434-760-5131 from 700 AM to 700 PM**
- **434-760-7568 from 700 PM to 700 AM**

Where do I put the old devices once my patient is changed over to the Alaris® System?

Each unit will identify a designated area for the placement of the "blue" devices so they can be removed from the clinical units.

Who will be needed on nursing units when the Go-Live team arrives?

We ask that the Department Manager, CNS and Super Trainers be available on the unit when the carts are scheduled to arrive on the units. A detailed plan will need to be developed on how to change over their pumps.

Are there any major practice changes I should be prepared for upon Go-Live?

All of the practice changes have been shared with you in your training classes. PNSO has provided an overview of the policy/procedure changes that have been updated for the new infusion pump.

The continuous infusion of narcotics will no longer occur on the CADD pumps. The Large Volume Pump will be the module by which these infusions should be delivered on. The use of a lock box with these infusions is mandatory. These medications will have noted within EPIC MAR that lock box and no port tubing is to be used with the medication. These will be supplied by the Patient Equipment Department.

Please leave both the PCA module and Lock Box's unlocked once the medication has been wasted. These boxes need to be cleaned by EVS and kept on your unit.

Have Super Users been trained for all shifts on each nursing unit?

Each of the units has been asked to have Super Trainers available to cover each of their shifts for at least the first 24 hours. They need to be available to complete the Competency Verification Report (CVR) with the staff.

Will we be changing all IV meds at Go-Live?

We are going to try to change over all of the IV medications during the day of go-live. If a patient is too unstable to do such then we ask that the changeover happen as soon as possible that day. Pumps will be left for the patients to be changed over the course of the day as patient condition permits and certain medications are completed.

When should I switch to the new tubing on my patient?

As you setup your new pump, you should be switching to the new tubing indicated for the LVP, PCA and Syringe modules. In consultation with Infection Control it is recommended that you start with a new infusion and tubing. **Do not respike** the bag to prevent contamination. Please use messaging with the Pharmacy to be prepared with the necessary medicated infusions for your patient's change over. This will allow for a smooth transition.

Using the Device

Will the devices remind me to unclamp my secondary medication set?

Yes, it will remind you.

I need to order a device. Who do I call? What do I call it?

You would enter the PC Unit and the type of module into the Service Tracking request site. IV Pump PCU and modules are labeled like so:

- IV Pump- PC unit (White)
- IV Pump-LVP (Blue)
- IV Pump-PCA (Purple)
- IV Pump-Syringe (Gray)

The device that was changed out was in isolation, what do I do?

Leave the device in the room until it can be wiped down based on the type of precaution that the patient was on. Remove it from the room once it has been cleaned down. Place the device in the soiled holding area for pick up by Patient Equipment Department.

How should the Alaris® System be cleaned between patients?

If an Infusion pump is going to be used after it had been in contact with another patient it will need to be wiped down in accordance with hospital cleaning protocol.

If a patient transfers between units, who is responsible for resetting their profile?

If a patient transfers between units the profiles will not need to be changed as long as the patient remains within in the same profile. So, if a patient is transferred from the NICU Service to the Pediatric Service, the Pediatric unit would need to reset the profile on the pump from NICU to Pediatrics. This is done by powering down and then powering on the IV pump.

How will the Alaris® System be used with parenteral nutrition in the NICU?

The LVP module will be used to deliver parenteral nutrition in the NICU.

Will the Alaris System be used for breast milk and enteral feeds in the NICU, PICU and Peds Acute Units?

Not at this time, the Med Fusion 3500 pumps will continue to be used to deliver these products in these areas for the appropriate patient population. Each clinical area in the Children's Hospital will have a designated amount of these pumps for use in enteral feedings.

Will the Alaris System be used for Inhaled Medications given by Respiratory Therapy?

Not at this time, a designated amount of Med Fusion 3500 pumps will continue to be used by Respiratory Therapy for inhaled medications.

Where can I find a copy of the Alaris® System Directions for Use?

These will be delivered to each unit at the time of go-live. Quick guide reference laminated sheets will be attached to each PC Unit.

Will any of the Alaris® System modules be attached or will they all be standalone?

The modules will not be attached as each department has different module demands. Ordering of the PC Unit and modules will be separate in Service Tracking.

What are the major changes between our current technology and the Alaris® System?

The Alaris System has improved their guardrails to ensure patient safety with infusions. The library is composed of four areas: continuous infusions, intermittent infusions, PCA and fluids. This makes for a more robust library, which includes anti-infectives, chemotherapy, and study drugs. The Alaris System is wireless, which will allow pharmacy to remotely update drug library. In Phase two, the pump will enhance patient safety further with bi-directional data flow with EPIC MAR.

Will there be a designated quota of Alaris® Systems for each unit?

The plan is to replace all of the "blue" Alaris that are currently within the Medical Center, TCH and Off site Centers.

Data Set Questions

What profile do I work in? (Provide a list of profiles with corresponding units)

There are three profiles that can be use:

> ***Adult*** – services all of the adult patient populations
>
> ***NICU*** – services the NICU patient population and those patient who are receiving care from Neonatology Service outside of the NICU
>
> ***Pediatrics*** - services the PICU and Acute Care Pediatric population who are receiving care from Pediatrician.

Module-specific Questions

Can I run blood on the Alaris Large Volume Module (LVP)?

Yes, blood can be run on the LVP module. At no time should a pressure bag be used while infusing blood on the pump. Only those units who have been infusing blood currently through the pump can continue their practice of running blood on the new pump.

What is the procedure for Continuous Controlled Substance Infusions?

With new Alaris System, CADD pumps will no longer be used for the continuous infusion of controlled substances. Large volume module will be used with a lock box for administration of these infusions. Pharmacy will designate on MAR that a lock box and no port tubing are required with specific infusions.

The exception will be patients who are unstable requiring constant 1:1 care with a destination of an ICU or patients who are admitted directly to the ICU from the OR under the supervision of the anesthesiologist or the resident. Otherwise, the expectation is that once the patient stabilizes requiring less direct supervision outside of ICU, becomes a boarder in the ED waiting for an ICU bed or is admitted to an ICU then the lock box will be required to prevent medication diversion.

The tubing fill will be 23ml when priming a new tubing set which needs to be accounted for on the EPIC flowsheet.

What should I do if I receive a Guardrails® alert?

Determine the level of the Guardrails alert as there two alerts. First alert is to inform you at you have reached a soft alert which indicates that you have exceeded the soft limits for the drug and asks the user if they wish to continue. The second is a hard alert which cannot be exceeded under any circumstance and requires re-programming. Hard alerts have been selected for agents that pose significant patient safety risks if programmed.

Who should I call if I have questions about the data set profiles (i.e., the drug library)?

Your clinical pharmacist should be contacted for questions regarding the data set profiles.

What if I can't find a drug in the Guardrails® drug library?

Contact your clinical pharmacist for assistance.

What is the process for suggesting revisions to the Guardrails® drug library?

The library and all modifications must be approved by the Pharmacy and Therapeutics (P&T) Committee. To submit a library revision, please use the following form on the pharmacy website.
http://www.medicalcenter.virginia.edu/intranet/pharmacy/forms/infusion_pump_change_request_form_apr_2016.html

Are chemo drugs included in the Guardrails® drug library, if so, under which profile?
Chemotherapy drugs are included in the Guardrails® drug library located under either the Adult or Pediatric Profiles.

Will all drugs be available in the Guardrails® drug library?

The goal for the pumps is that all drugs administered by IV infusion are available in the library.

How will emergency drugs be handled in the Guardrails® drug library?

The Emergency (Code) drugs have been set up under the ZZ section of the Guardrails® drug library.

How would I know if there was a drug library change?

On the home screen of the PC unit in the upper portion of the screen is "UVA with a date" this refers to the date of the last update. In order to be sure that the pump is current with the latest version of the drug library it is important to power down the pump after use of the pump. Do not attempt to update a pump while a patient is receiving an infusion on the pump.

What is the policy for PCAs? Are there any changes to our current policy?
The policy for PCA remains the same other than a change in device name from CADD to PCA. The library has changed to having only three types of PCA available to the patient. It is to be used only for Patient Controlled Analgesia not Provider Controlled Analgesia. Please consult with your unit clinical Pharmacist to assist you and the LIPs on the ordering of PCA.

A designated access code furnished by Pharmacy will allow for PCA programming changes to occur outside of the chamber without needing the PCA key. Please use the "key" drawer in Pyxis for the access code. Priming of the PCA tubing requires a fill of 3ml which needs to be accounted for on the EPIC flowsheet.

How will PCA keys be obtained?
PCA keys for the new pumps will be available in Pyxis under "Key".

How will we obtain PCA syringes?

These will be through your Pyxis machine either in the matrix drawers or the towers depending on the unit that you work on. On the day of go live you will see a mix of CADD cassettes and PCA syringes. The CADD cassettes will be removed shortly after go live.

Will CADD pumps be available for PCA infusions?

PCA infusions will be on the CareFusion Alaris PCA module only. Approximately a week later the CADD pump library will be transitioned to addressing the CADD Epidural Library only.

Will CADD pumps be available for Epidural or Neuroaxial infusions?

Yes, both Epidural and Neuroaxial infusions will continue to be on CADD pumps. The library will be adjusted to focus on these types of infusion post Go Live.

Attachment G: Frequently Asked Questions – Off-Site Areas

University of Virginia, Alaris® System Implementation

Go-Live Questions

When are we converting from our old technology to the Alaris® System?

The Go Live date for converting from our old technology to the Alaris® System is **April 26, 2016**.

Some departments will receive their pumps either the evening before go-live or early the next morning day of go-live to allow them to start their first patients of the day with the new Infusion Pumps.

Command Center number for go-live day is 434-760-5132 for questions that may come up.

I was not able to attend training, what should I do?

Complete the CBL that can be found in NET LEARNING under Alaris pump and review the training video with an Infusion pump follow along with the instructor. A Super Trainer will need to check you off as having completed the teaching points for each module.

What if I have an unstable patient when it is time to change over devices?

If there is any instability with your patient at the time to change over the patient to the new devise, we want you to take the necessary steps ensuring patient safety. Wait until there is a better time to transition the over patient to the new pumps.

Where can I find resources for questions about the device?

Each pump will come equipped with the Quick Reference cards for the pump and modules.
Each of the units has designated Super Trainers to help their peers with questions about the device.
The pump library can be found on the pharmacy website.

Starting on Go Live there will be a CareFusion Specialist available for the next 7 days 24 hours a day who can be reached at:

- **434-760-5131 from 700 AM to 700 PM**
- **434-760-7568 from 700 PM to 700 AM**

Where do I put the old devices once my patient is changed over to the Alaris® System?

Each unit will identify a designated area for the placement of the "blue" devices and unused old tubing so they can be removed from the clinical units. Pumps and unused old supplies will be picked up shortly after Go Live.

Are there any major practice changes I should be prepared for upon Go-Live?

Consult with your manger if there are any major practice changes for your area.

When should I switch to the new tubing on my patient?

On Go Live, as you setup your new pump, you should be switching to the new tubing indicated for the LVP, PCA and Syringe modules.

Using the Device

Will the devices remind me to unclamp my secondary medication set?

Yes, it will remind you.

How should the Alaris® System be cleaned between patients?

If an Infusion pump is going to be used after it had been in contact with another patient it will need to be wiped down in accordance with hospital cleaning protocol.

Where can I find a copy of the Alaris® System Directions for Use?

These will be delivered to each unit at the time of go-live. Quick guide reference laminated sheets will be attached to each brain.

What are the major changes between our current technology and the Alaris® System?

The Alaris System has improved their guardrails to ensure patient safety with infusions. The library is composed of four areas: continuous infusions, intermittent infusions, PCA and fluids. This makes for a more robust library, which includes anti-infectives, chemotherapy, and study drugs. In Phase two, the pump will enhance patient safety further with bi directional data flow with EPIC MAR.

Will there be a designated quota of Alaris® Systems for each unit?

The plan is to replace all of the "blue" Alaris that are currently within the Medical Center, TCH and Off site Centers.

How do we order supplies for Alaris® System?

Use the new bin numbers in the attached guide to cross reference old products to new supplies. Place orders through the ePro system no later than COB Wednesday, April 20th. Please order no more than one week worth of supplies (to prevent an initial shortage of tubing during the influx of anticipated orders). Please place old tubing with the old 'Blue' IV Pumps and we will remove the tubing along with the old pumps at a later date.

Data Set Questions

What profile do I work in? (Provide a list of profiles with corresponding units)

There are three profiles that can be use:

Adult – services all of the adult patient populations

NICU – services the NICU patient population and those patient who are receiving care from Neonatology Service outside of the NICU

Pediatrics - services the PICU and Acute Care Pediatric population who are receiving care from Pediatrician.

Module-Specific Questions

Can I run blood on the Alaris Large Volume Module (LVP)?

Yes, blood can be run on the LVP module. At no time should a pressure bag be used while infusing blood on the pump. Only those units who have been infusing blood currently through the pump can continue their practice of running blood on the new pump.

What should I do if I receive a Guardrails® alert?

Determine the level of the Guardrails alert as there two alerts. First alert is to inform you at you have reached a soft alert which indicates that you have exceeded the soft limits for the drug and asks the user if they wish to continue. The second is a hard alert which cannot be exceeded under any circumstance and requires re-programming. Hard alerts have been selected for agents that pose significant patient safety risks if programmed.

Who should I call if I have questions about the data set profiles (i.e., the drug library)?

Your clinical pharmacist should be contacted for questions regarding the data set profiles.

What if I can't find a drug in the Guardrails® drug library?

Contact your clinical pharmacist for assistance.

What is the process for suggesting revisions to the Guardrails® drug library?

The library and all modifications must be approved by the Pharmacy and Therapeutics (P&T) Committee. To submit a library revision, please use the following form on the pharmacy website.

http://www.medicalcenter.virginia.edu/intranet/pharmacy/forms/infusion_pump_change_request_form_apr_2016.html

Are chemo drugs included in the Guardrails® drug library, if so, under which profile?

Chemotherapy drugs are included in the Guardrails® drug library located under either the Adult or Pediatric Profiles.

Will all drugs be available in the Guardrails® drug library?

The goal for the pumps is that all drugs administered by IV infusion are available in the library.

How would I know if there was a drug library change?

On the home screen of the PC unit in the upper portion of the screen is “UVA with a date” this refers to the date of the last update. In order to be sure that the pump is current with the latest version of the drug library it is important to power down the pump after use of the pump. Do not attempt to update a pump while a patient is receiving an infusion on the pump.

The tubing fill will be 23ml to be accounted for when priming a new tubing set which needs to be accounted for on the EPIC flowsheet.

Attachment H: Best Practice for Cleaning Alaris System Devices

- Make sure the modules are separated
- Clean each module separately
- Make sure the instrument is turned off, unplug the power cord and wipe all of the exposed device surfaces

- **Cleaning Solutions:**
  - **PDI (Purple Top) Super Sani-Cloth Wipes**
  - **PDI (Orange Top) Bleach Wipes (i.e. C Diff.)**

- Follow the instructions on the solution time to leave it on the device surface.
- Confirm that the equipment is thoroughly dry before using them again.