Alaris Guardrails

Quick Overview for Staff Pharmacists

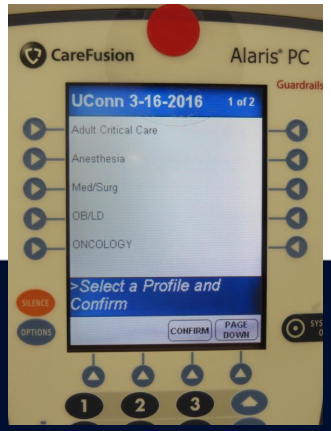
Ruth LaCasse Kalish, RPh

3-16-2016

UCONN HEALTH

Objectives

- Provide information to pharmacists that may assist when a nurse calls with an issue with the guardrails. Ruth Kalish, RPh can be contacted with any items that require more assistance.
- Illustrate some features of the Alaris Guardrails
- Review recent changes within the Alaris Guardrails
- Review how a nurse would program Alteplase for Stroke within the Alaris Guardrails



UCONN HEALTH

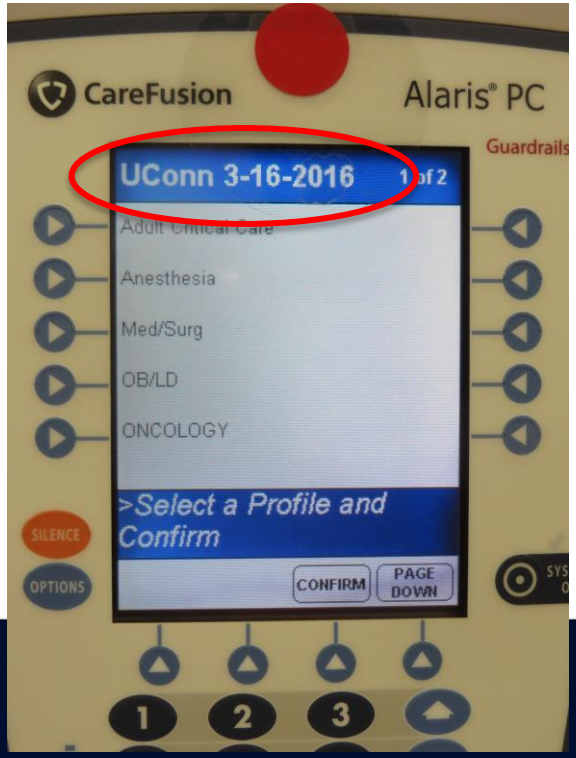
Guardrails®

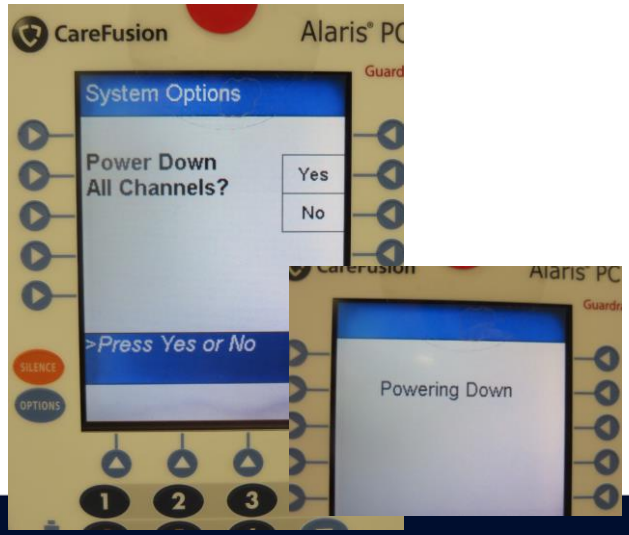
Nursing Resources

- Pharmacy website under “Nursing Hot List” contains the latest guardrails and overview of recent changes
- Information on how to program the pump for Alteplase under “Anticoagulation & Heparin Resources”
- On Nursing website (nursing.uchc.edu) has PCA information:
  - http://nursing.uchc.edu/nursing_standards/docs/Alaris%20System%20Implementation.pdf
  - http://nursing.uchc.edu/nursing_standards/docs/PCA%20Pocket%20Guide.pdf

Current Library Version?

- In order to determine the current version of the library, it will appear in the corner under module selection. Nurses must power down the pump in order to get the current library so it can connect to wifi.

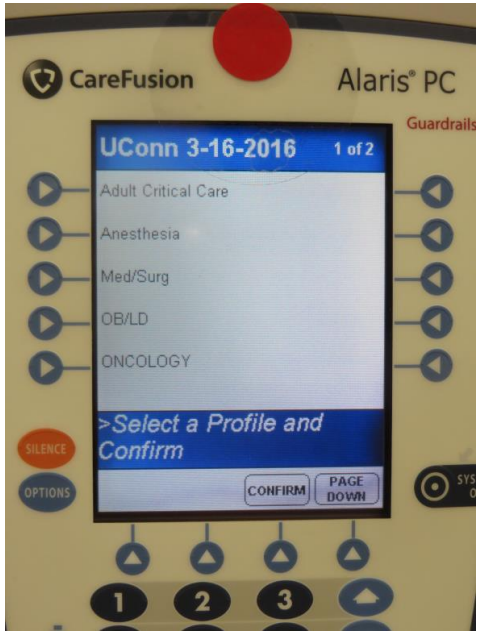


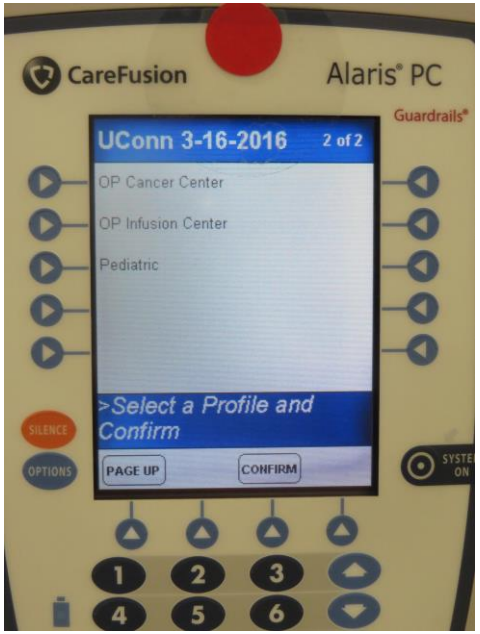


UCONN HEALTH

Modules

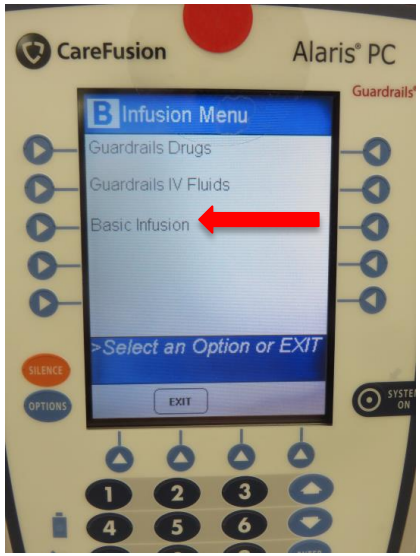
- Various areas have specific modules that contain medications specific to that area. At UConn, we have the following:
  - Adult Critical Care
  - Anesthesia
  - Med/Surg
  - OB/LD
  - Oncology
  - OP Cancer Center
  - OP Infusion Center
  - Pediatrics



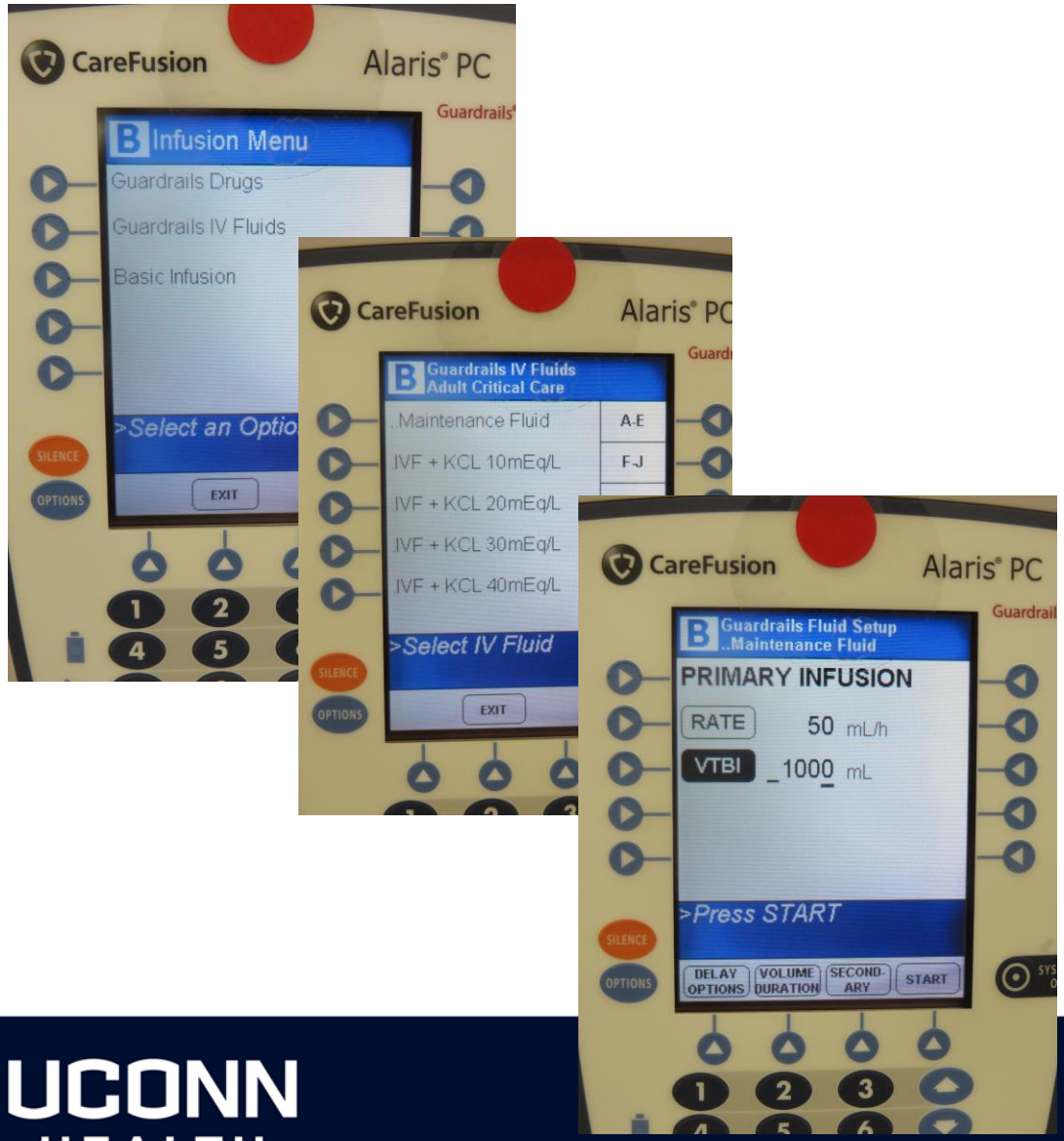


Basic Infusion

- Medications can be run outside of the guardrails under basic infusion. This is highly discouraged as there is no clinical checking.

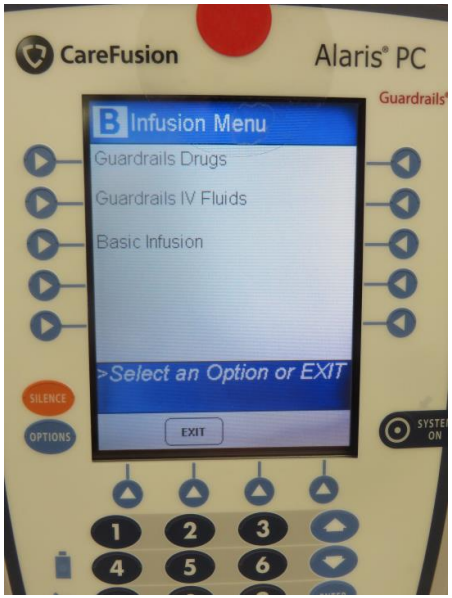


IV Fluids

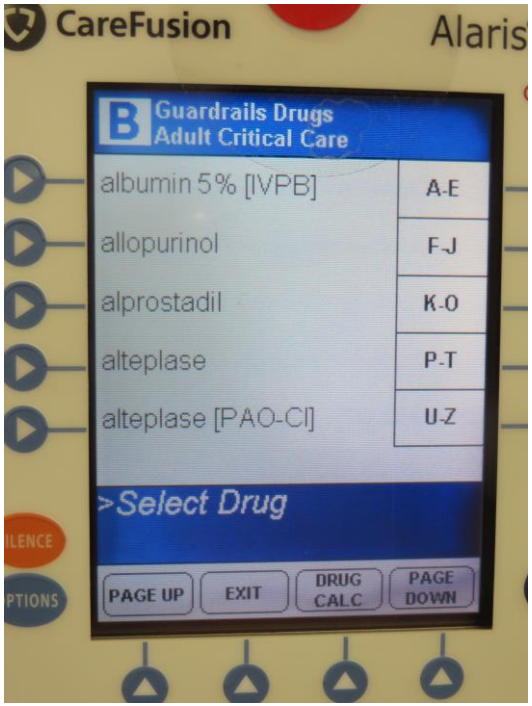


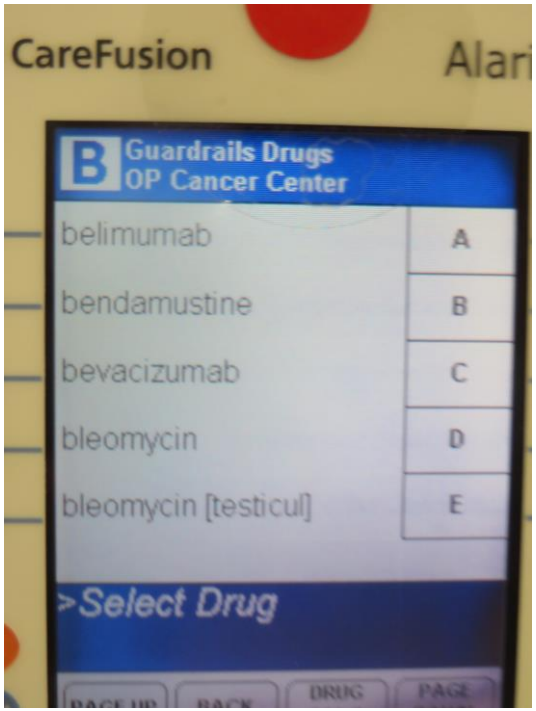
- This would be used for large volume parenterals (e.g. TPN, Lipids, hydration).
- Any hydration that does not contain a medication can be run under the ..Maintenance Fluid entry
- VTBI = Volume to Be Infused

Drug Library



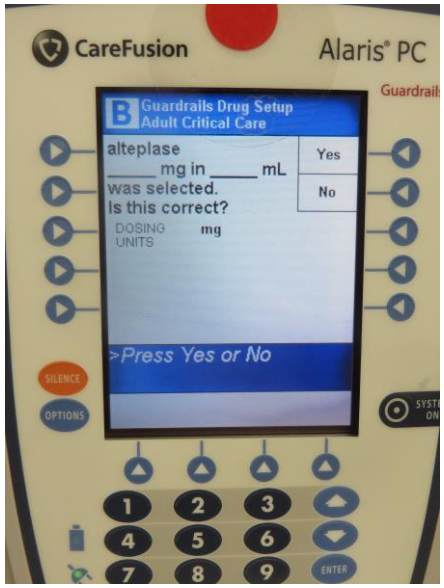
- These are all the Drugs available within that module
- It is in alphabetical listings and contains medications that are given continuously and intermittently.

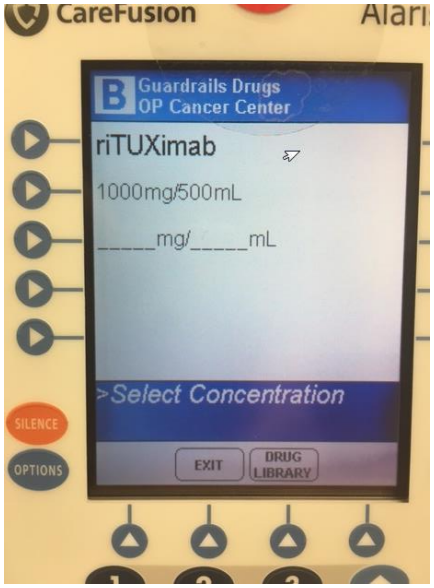




Drug Library

- Certain medications may already have dosing units programmed (e.g. Vancomycin) whereas others the nurse will need to program in (e.g. Alteplase for stroke).
- Some medications can have both selections (e.g. Rituximab).





Continuous Infusion (CI) vs Intermittent Infusion (II)

- Medications are programmed into Guardrails dependent upon if a product is administered continuously or as an intermittent infusion. This does not apply to Patient Controlled Analgesia (PCA) or IV Fluids

2.1.1 Continuous/Bolus - Non-Anesthesia Drugs

Continuous/Bolus - Non-Anesthesia Drugs - Adult Critical Care

Drug Name *Therapy* Concentrations	Module		Conc. Limits	Dosing Units	Continuous				Bolus				Bolus Dose Administration Rate				Clinical Ads. Name
	P	S			Soft Min	Soft Max	Hard Max	Initial Value	Soft Min	Soft Max	Hard Max	Initial Value	Soft Min	Soft Max	Hard Max	Initial Value	
abciximab 9 mg / 250 mL (0.036 mg / mL)	X	--	n/a	Continuous mcg/kg/min	0.05	0.13	--	0.125	--	--	--	--	--	--	--	--	Filter

2.1.5 Intermittent Drugs

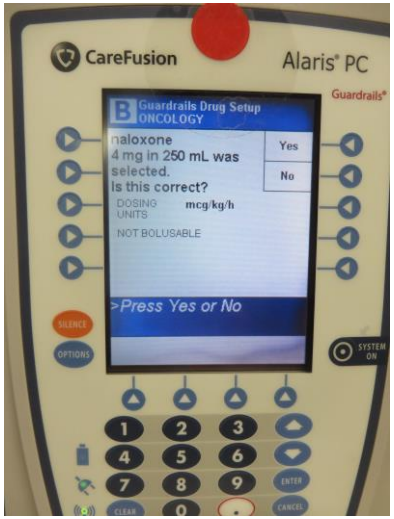
Intermittent Drugs - Adult Critical Care

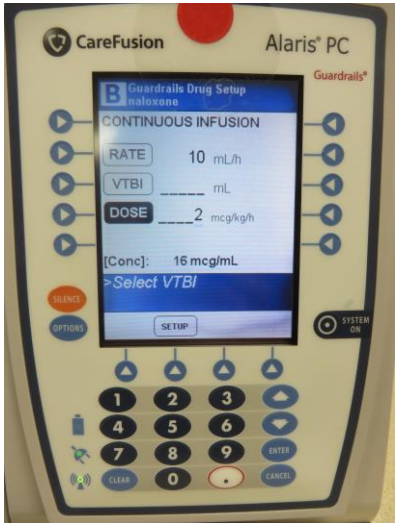
Drug Name *Therapy*	Available As		Total Dose Limits				Concentrations	Module		Duration Limits				Concentration Limits				Clinical Ads. Name
	Pri.	Sec.	Dosing Units	Soft Min	Soft Max	Hard Max		P	S	Hard Min	Soft Min	Soft Max	Initial Value	Conc. Units	Hard Min	Soft Min	Soft Max	
acetaminophen	X	X	mg	500	1000	--	1,000 mg / 100 mL (10 mg / mL)	X	--	--	00:12	00:30	00:15	n/a	n/a	n/a	n/a	–
							--- mg / --- mL	X	--	--	00:12	00:30	00:15	--	--	--	--	

UCONN HEALTH

Dosing Units

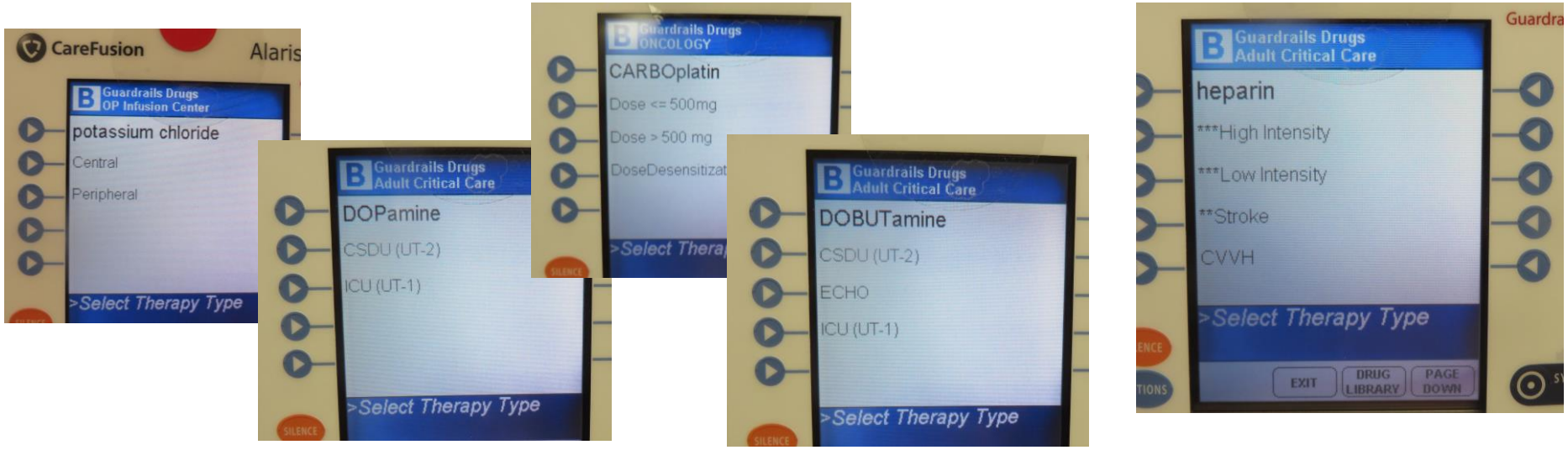
- Medications can be programmed in the guardrails based on BSA, body weight or just the dose (e.g. mg, Gm). Below illustrates inputting of a weight-based dosing medication.





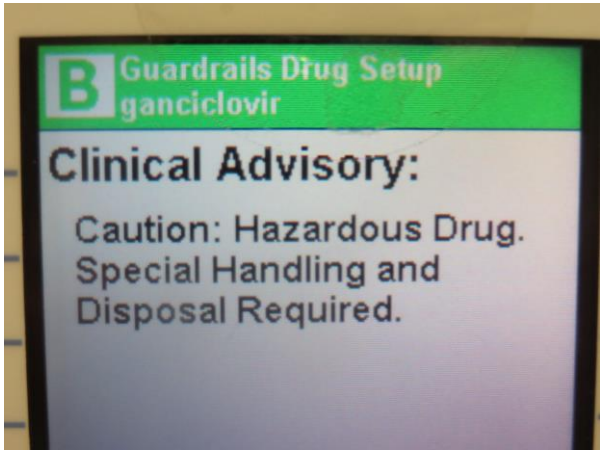
Therapies

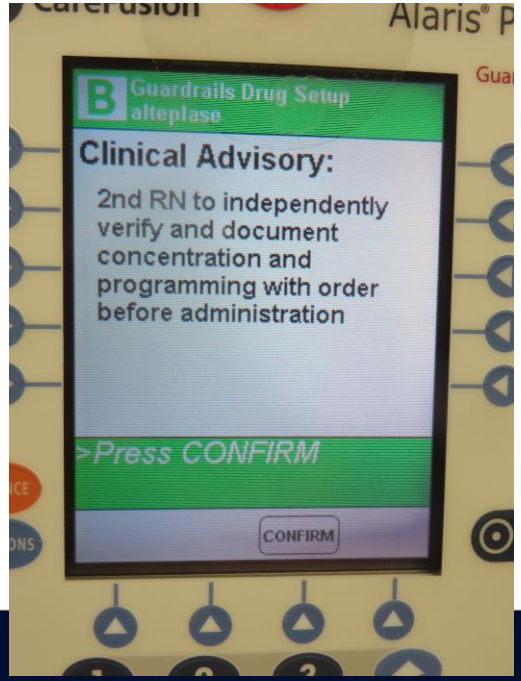
- A medication may be grouped in such a way that the nurse needs to identify the indication, route, dosing interval, etc. in order to proceed.
- The benefit of this is that it lessens the amount of scrolling throughout the library and provides clinical standards based on each selection.



Clinical Advisories

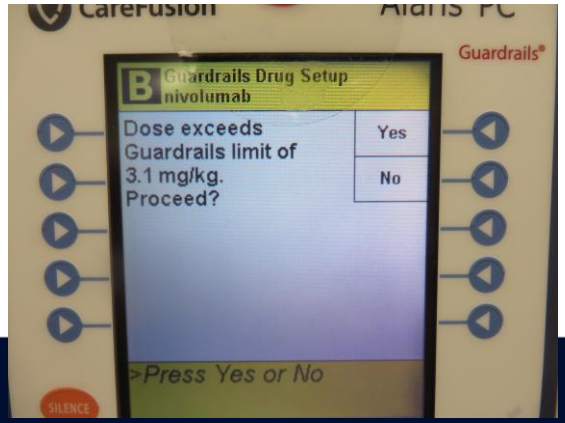
- When a certain medication is picked, there are alerts/advisories that will appear to the nurse asking them to confirm (filter, high alert, LASA, etc.). Below are some examples:

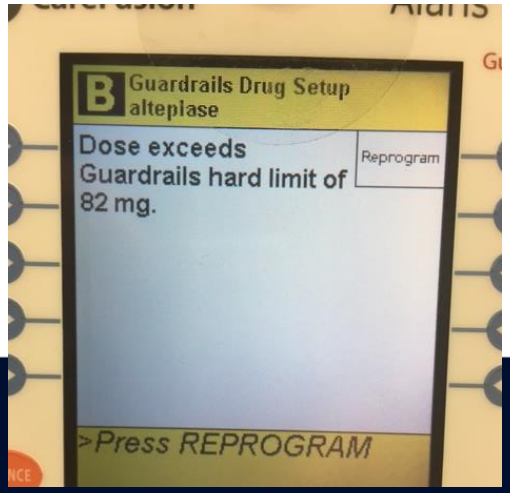




Soft and Hard Stops

- The pump has settings that are either a hard or soft stop.
- A soft stop can be acknowledged and then able to proceed
- A hard stop cannot be bypassed and could require an additional pump or an immediate update to the library if this does occur and was verified as such. Be sure to check the guardrails library on the pharmacy website if you do have an issue to see the parameters.





UCONN HEALTH

Patient Controlled Analgesia (PCA)

Refer to the nursing website for further information on PCA programming

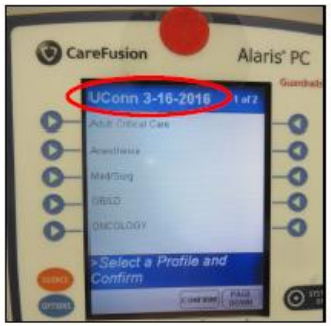
PCA Drugs - Adult Critical Care						
Drug Name *Therapy*	**Concentrations:** 50 mg / 50 mL (1 mg / mL)					
HYDROmor PCA 1mg/mL						
Concentration Limits	**Conc. Units**		**Hard Min**		**Soft Min**	**Soft Max**
	n/a		n/a		n/a	n/a
Limits	**Hard Min**	**Soft Min**	**Soft Max**	**Hard Max**	**Initial Value**	**PCA Pause Protocol:** No
PCA Dose	n/a	0.2	5	10	--	**Dosing Units**
Continuous Dose / h	n/a	0.5	10	12	--	mg
Bolus Dose	n/a	--	--	--	n/a	**Max Accum. Includes Bolus?**
Loading Dose	n/a	--	--	--	n/a	No
Lockout Interval (minutes)	5	6	30	n/a	--	**Clinical Advisory Name**
Max Acc. Dose Range / 1 h	n/a	1.2	15	30	--	Double Check by 2 RN

PCA Drugs - Adult Critical Care						
Drug Name *Therapy*	**Concentrations:** 10 mg / 50 mL (0.2 mg / mL)					
HYDROmor PCA0.2mg/mL						
Concentration Limits	**Conc. Units**		**Hard Min**		**Soft Min**	**Soft Max**
	n/a		n/a		n/a	n/a
Limits	**Hard Min**	**Soft Min**	**Soft Max**	**Hard Max**	**Initial Value**	**PCA Pause Protocol:** No
PCA Dose	n/a	0.05	1	2	--	**Dosing Units**
Continuous Dose / h	n/a	0.1	2	3	--	mg
Bolus Dose	n/a	--	--	--	n/a	**Max Accum. Includes Bolus?**
Loading Dose	n/a	--	--	--	n/a	No
Lockout Interval (minutes)	5	6	30	n/a	--	**Clinical Advisory Name**
Max Acc. Dose Range / 1 h	n/a	0.6	3	4.4	--	Double Check by 2 RN

Alaris Guardrail Update

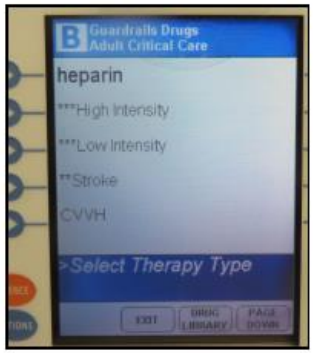
3-16-2016

If a pump has a **red** sticker, it has been updated with the latest library that is "UConn 3-16-2016." After this week, all pumps should have the latest library for usage.



Some of the changes include:

- New Modules for ACCU (OP Infusion Center) and Cancer Center (OP Cancer Center)
- Therapy identified medications to make sure the appropriate indication is picked for the medication. These include Aleplase, Heparin, Dobutamine, Dopamine, Potassium Chloride etc. Picture below details what a therapy medication looks like.
- New medications added (IdaruCIZUMAB, nivolumab, etc)
- HYDROmorphine and Morphine indicate the concentration rather than Naïve or Tolerant



Contact Ruth Kalish at rkalish@uchc.edu if you have any questions or concerns. You can also visit the pharmacy website that details more information on the changes.

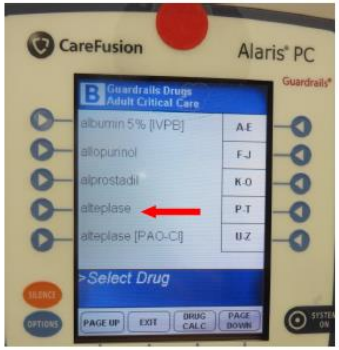
Any updates with the Guardrails will be communicated out to the nursing and pharmacy staff. This flyer describes the most recent change.

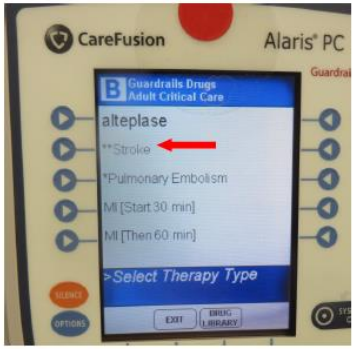
UCONN HEALTH

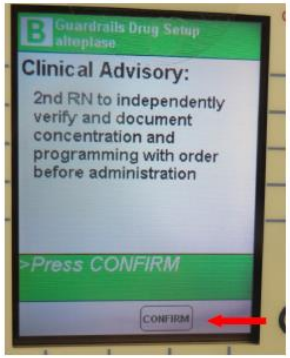
Alteplase for Stroke in Guardrails

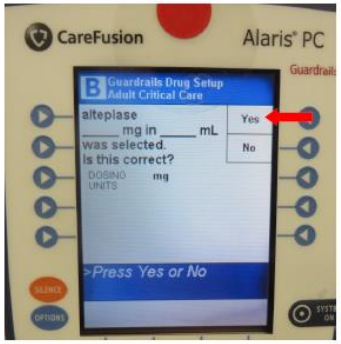
Alteplase in Alaris Guardrails

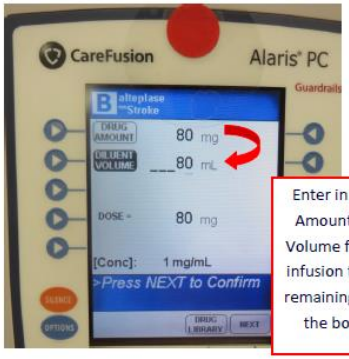
Alteplase has now been added to the pump as a therapy medication to make it easier to pick the appropriate indication and less scrolling through the pump library.











Enter in Drug Amount and Volume for the infusion that is remaining after the bolus.

Contact Ruth Kalish at rkalish@uchc.edu if you have any questions or concerns. You can also visit the pharmacy website that details more information on the changes.

UCONN HEALTH

Please contact Ruth Kalish at rkalish@uchc.edu if you have any questions on this presentation