LDA STANDARDIZATION

Lines



Background

- Epic released LDA Avatar with 2018 upgrade, making LDAs easily viewable.
- Multiple requests from nursing to standardize LDA flowsheet rows.
- Quality issues related to lack of standardization in LDA flowsheet rows.



Current Status

Duplicative LDAs

- The same LDA existed in multiple departments that had different flowsheet rows.
- For example, the peripheral IV LDA existed in ED, Adult, and Neo/Peds. All were similar with slight differences.

Lack of standardization

- Flowsheet rows varied from one type of LDA to another.
- For example, end cap, tubing, and dressing changes were not present in all line LDAs.

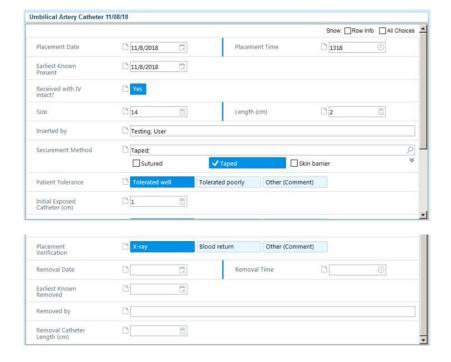


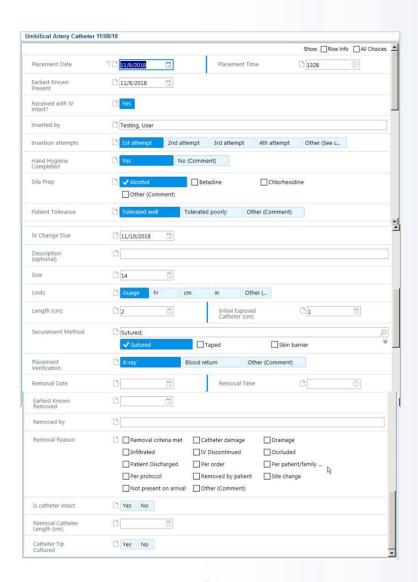
Phase One: UAC, UVC, CVC, Midline, an PICC

Go-live date is December 4, 2018



UAC Properties







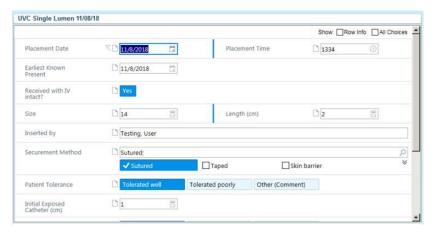
UAC Assessment

Properties	Placement Date/Time:	11/08/18 1318	Earliest Known Present: 11	1/08/18 I	Received with IV i	ntact?: Yes	Size:
Site Assessment	0.0						
Line Status							
Art Line Waveform							
Securement Status							
Length mark (cm)							
Art Line Interventions							
Dressing Type							
Dressing Status							
Dressing Intervention							

Umbilical Artery Cat	theter 11/08/18	
Properties	Placement Date/Time: 11/08/18 1328	Earliest Known Present: 11/08/18 Received with IV intact?: Yes
Site Assessment	0.0	
Line Status		
Length mark (cm)		
Art Line Waveform		No.
Securement Status		
Dressing Type		
Dressing Status		
Dressing Intervention		
Dressing Change Due		
Line Care		
Tubing Change Due		
Endcap Change Due		



UVC Properties



Placement Verification	X-ray	Bloo	d return Other (Co	omment)	
Removal Date		ta)	Removal Time		0
Earliest Known Removed		苗			
Removed by					
Removal Catheter Length (cm)					

	Show: Row Info All Choice
Placement Date	Placement Time 1338 ①
Earliest Known Present	D 11/8/2018 G
Received with IV intact?	D ves
Inserted by	☐ Testing, User
Insertion attempts	1st attempt 2nd attempt 3rd attempt 4th attempt Other (See c
Hand Hygiene Completed	No (Comment)
Site Prep	□ ✓ Alcohol □ Betadine □ Chlorhexidine □ Other (Comment)
Patient Tolerance	Tolerated well Tolerated poorly Other (Comment)
V Change Due	□ 11/10/2018
Description optional)	ם
Size	D ₁₄
Jnits	Guage Fr cm in Other (
ength (cm)	Initial Exposed Catheter (cm)
Securement Method	Sutured: Sutured Taped Skin barrier
Placement /erification	X-ray Blood return Other (Comment)
Removal Date	Removal Time
Earliest Known Removed	
Removed by	D
Removal Reason	☐ Removal criteria met ☐ Catheter damage ☐ Drainage ☐ Infiltrated ☐ IV Discontinued ☐ Occluded ☐ Patient Discharged ☐ Per order ☐ Per patient/family ☐ Per protocol ☐ Removed by patient ☐ Site change ☐ Not present on arrival ☐ Other (Comment)
Is catheter intact	Yes No
Removal Catheter Length (cm)	D
Catheter Tip Cultured	Yes No



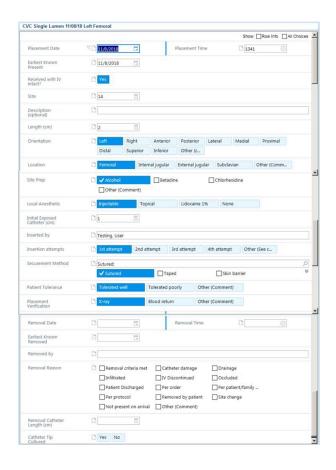
UVC Assessment

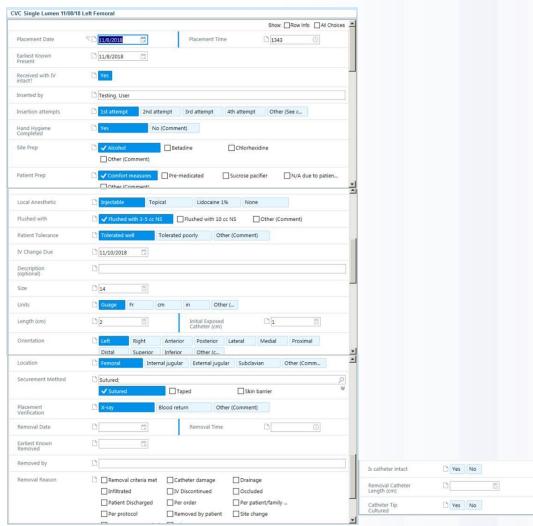
Properties	Placement Date/Time: 11/08/18 133	Earliest Known Present: 11/08/18	Received with IV intact?: Yes Size:
Site Assessment	ا ا		
Line Status			
Length mark (cm)			
Dressing Type			
Dressing Status			
Dressing Intervention			
Dressing Change Due			
Line Care			
Tubing Change Due			
Endcap Change Due			

Properties	Placement Date/Time: 11/08/18 1338	Earliest Known Present: 11/08/18 Received with IV intact?: Yes
Site Assessment	٥٥	
Line Status		
Length mark (cm)		
Securement Status		
Dressing Type		
Dressing Status		
Dressing Intervention		
Dressing Change Due		
Line Care		
Tubing Change Due		
Endcap Change Due		



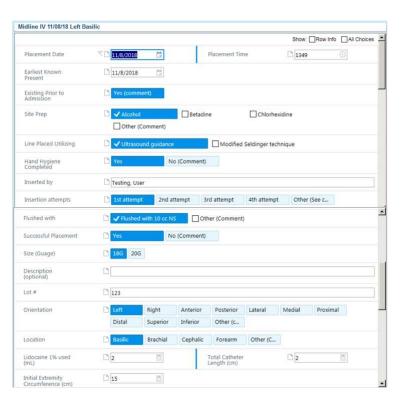
CVC Properties







Midline Properties



Van een		-4		
☐ ✓ Stabilization	device	Transparen	t dressing Oti	ner (Comment)
Chlorhexidine in	mpregnated	patch Gauz	e	
Tolerated well	To	lerated poorly	Without complain	Other (Comment
	白	Remova	l Time	
D				
☐ Removal crit	eria met	Catheter dama	ige Drainage	
☐ Infiltrated		☐ IV Discontinue	d Occluded	is and the second
Patient Disch	narged	Per order	Per patie	nt/family
Per protocol		Removed by p	atient Site chan	ge
☐ Not present	on arrival	Other (Comme	ent)	
□ □ Clean	Dry	☐ Intact	Bleeding	Draining
☐ Ecchymotic	☐ Edema	atous Extrav	asated Leaking	Painful
T evet	Positio	onal Red	Tender	Not asses
Pink	LI POSITIO	, L. C.		
	Chlorhexidine i Chlorhexidine i Tolerated well Removal crit Infiltrated Patient Discl Per protocol Not present	Chlorhexidine impregnated Tolerated well Tolerated well Removal criteria met Infiltrated Patient Discharged Per protocol Not present on arrival	Chlorhexidine impregnated patch Chlorhexidine impregnated patch Tolerated well Tolerated poorly Remova Infiltrated Patient Discharged Per order Per protocol Removed by p Not present on arrival Clean Dry Infiltrated Dry	Chlorhexidine impregnated patch Tolerated well Tolerated poorly Without complain Removal Time Removal Time Catheter damage Infiltrated IV Discontinued Patient Discharged Per order Per protocol Removed by patient Not present on arrival Other (Comment) Clean Dry Intact Bleeding



Midline Properties -New

					Show: R	ow Info All Choice	s
Placement Date	11/8/2018	Ġ	Placement	t Time	1456	0	
Earliest Known Present	11/8/2018						
Received with IV intact?	Yes						
Inserted by	Testing, User						
Insertion attempts	1st attempt	2nd attempt	3rd attempt	4th attem	Other (See	e c	
Hand Hygiene Completed	Yes	No (Com	nment)				
Site Prep	☐ ✓ Alcohol ☐ Other (Co		Betadine	Chlorh	exidine		
Patient Prep	☐ ✓ Comfort n	neasures P	re-medicated	Sucrose	pacifier _N	I/A due to patien	
	Other (Co						
Local Anesthetic	[] Injectable	Topical	Lidocai	ne 1% No	ne		
Flushed with	☐ ✓ Flushed w	ith 3-5 cc NS	☐ Flushed with	10 cc NS	Other (Comme	ent)	
Patient Tolerance	Tolerated we	Tolera	ited poorly	Other (Comme	nt)		
V Change Due	11/10/2018						
Description (optional)	D						
Size	□ 18	=					
Units	☐ Guage F	r cm	in	Other (
Orientation	Left	Right Ant	terior Posteri	or Lateral	Medial F	Proximal	
	Distal	Superior Infe	Other (c			
Location	Basilic	Brachial Cer	phalic Forear	m Other (C.			

Securement Method	Sutured;			5
	✓ Sutured	Taped	Skin barrier	1
Placement Verification	X-ray 8	Blood return	Other (Comment)	
Lot #	123			
Total Catheter Length (cm)	□2 🖺	Initial E Circum	xtremity 15	
Removal Date		Remov	al Time	①
Earliest Known Removed				
Removed by	D			
Removal Reason	☐ Removal criteria met	Catheter dam	age Drainage	
	☐ Infiltrated	☐ IV Discontinue	ed Occluded	
	Patient Discharged	Per order	Per patient/family	
	Per protocol	Removed by	patient Site change	
	☐ Not present on arrival	Other (Comm	ent)	
Is catheter intact	Yes No			
Removal Catheter Length (cm)				
Catheter Tip Cultured	Yes No			



PICC Properties

						Show:	Row Info	All Choices
Placement Date	11/8/2018	Ė		Placement Tim	ie	1352		
Earliest Known Present	11/8/2018							
Received with IV intact?	Yes							
Catheter Time Out Checklist Completed	Yes							
Size (Fr)	₾ 8							
Description (optional)	D							
Length (cm)	D 2	8						
Orientation	Left Left	Right	Anterior	Posterior	Lateral	Medial	Proximal	
	Distal	Superior	Inferior	Other (c				
Location	Basilic Basilic	Brachial	Cephalic	Femoral	Other (C			
Site Prep	☐ ✓ Alcoho	(Comment)	Betadin	e	Chlorhe	xidine		
Local Anesthetic	[Injectable	Торі	cal	Listosaine S	Nor	e		
Initial Extremity Circumference (cm)	15			Initial Exposed Catheter (cm)		<u></u> 2		
Inserted by	Testing, U	ser						
Insertion attempts	1st attem	pt 2nd att	empt 3r	d attempt	4th attemp	t Other	r (See c	
Patient Tolerance	Tolerated	well	Colerated por	orly	her (Commen	t)		
Placement Verification	☐ X-ray		Blood return	Oti	her (Commen	t)		
Removal Date	D	ti)		Removal Time		D		
Earliest Known Removed	D	ä						
Removed by	D							
Removal Reason	Per pro	ted Discharged	☐ IV Disc		Drains Occlu Per pa	ded tient/family	_	
Removal Catheter Length (cm)	D	E)						
Catheter Tip Cultured	Yes No							

						Shov	Row Info	All Choices	-		
Placement Date	11/8/2018			Placement Ti	me	145	8 ①				
Earliest Known Present	11/8/201	8 🛱						D ₀			
Received with IV intact?	Yes										
Inserted by	Testing, U	Jser									
Insertion attempts	1st atten	2nd at	empt	3rd attempt	4th atten	npt Oth	er (See c				
Hand Hygiene Completed	Yes	No	(Comment	0							
Site Prep	☐ ✓ Alcoh	ol (Comment)	Betad	line	Chlor	hexidine					
Patient Prep	☐ ✓ Comf	ort measures	☐ Pre-me	edicated	Sucrose	pacifier	□N/A due to p	atien	-1		
Local Anesthetic	Injectable	Торі	al	Lidocaine	1% No	one					
Flushed with	Flushe	ed with 3-5 cc N		lushed with 10	cc NS	Other (C	omment)				
Patient Tolerance	Tolerated	l well	olerated po	oorly	ther (Comme	ent)					
IV Change Due	11/10/20	18							1		
Description (optional)											
Size	□ 8								_		
Units	Guage	Fr	m i	in Oth	ner (
Length (cm)	□ 2			Initial Expose Catheter (cm)	d)	D i					
Orientation	Left	Right	Anterior	Posterior Other (s	Lateral	Medial	Proximal				
Location	Distal	Superior Antecubi	Inferior	Other (c	Basilic	Brachial	Cephalic		1		
account.	Chest	Femoral	Forearm	Leg	Other (C	Diacinal	Серпанс				
Securement Method	Sutured;							٥			
	✓ Suture	ed	Птаре	ed	□sk	in barrier		×			
Placement Verification	☐ X-ray	E	llood return	n Ot	ther (Comme	ent)					
Initial Extremity Circumference (cm)	15	[2]		Removal Date		D	Ü				
Removal Time		0		Earliest Know Removed	n	D	Ü				
Removed by	D		72.00								
Removal Reason	Remo	val criteria met	Cathe	eter damage	Drai	nage					
	□Infiltra	ited	☐IV Dis	scontinued	Occ	uded			Is cat	heter intact	Yes
	Patien	t Discharged	Per o	rder	Per	patient/family	/		Remo	oval Catheter	D
										th (cm)	

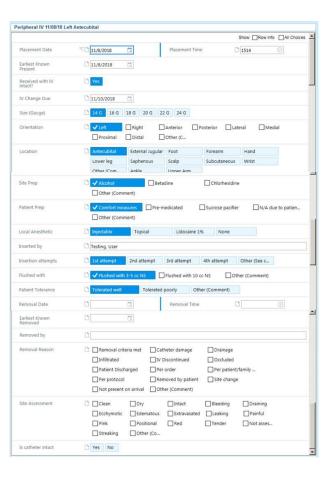


Phase Two: PIV, Arterial Line, HD, and PD

Go-live date is December 11, 2018



PIV Properties



measures P Topical	Betadine Betadine Lidocaine Lidocaine	4th attempt Chlorhexi Sucrose pac	Other dine	(See c	All Choices
2nd attempt No (Con comment) Topical With 3-5 cc NS	Betadine Betadine Lidocaine Lidocaine	Chlorhexi	dine ifier [□N/A due	e to patien
2nd attempt No (Con comment) measures P Topical with 3-5 cc NS	Betadine Betadine Lidocaine Lidocaine	Chlorhexi	dine ifier [□N/A due	e to patien
2nd attempt No (Con comment) measures P Topical with 3-5 cc NS	Betadine Betadine Lidocaine Lidocaine	Chlorhexi	dine ifier [□N/A due	e to patien
2nd attempt No (Con comment) measures P Topical with 3-5 cc NS	Betadine Betadine Lidocaine Lidocaine	Chlorhexi	dine ifier [□N/A due	e to patien
measures P Topical	Betadine Pre-medicated Lidocaine	Sucrose pac	ifier [e to patien
measures P Topical	Pre-medicated Lidocaine	Sucrose pac	ifier [e to patien
Topical with 3-5 cc NS	Lidocaine	None			e to patien
with 3-5 cc NS	Flushed with 1			mment)	
-	Barrier Street	0 cc NS	Other (Cor	mment)	
ell Toler	rated poorly				
		Other (Comment)			
C)					
8					
Fr cm	in Of	ther (
The state of the s		Lateral	Medial	Proxima	al
External Ju	gular Foot	Forearm	Han	ıd	
Saphenous	Scalp	Subcutaneo	us Wrist	t	
Upper Arm	Other (Com				
					٥
	Taped	Skin b	arrier		*
Ö	Removal Tim	e			0
criteria met	Catheter damage	Drainage	e		
d 🗆	IV Discontinued	Occlude	d		
ischarged	Per order	Per patie	ent/family		
icol	Removed by patien	t Site char	nge		
	Fr cm Right Ar Superior Inti External Ju Upper Arm Continue To the Continue T	Fr cm in O Right Anterior Posterior Superior Inferior Other (c. External Jugular Foot Saphenous Scalp Upper Arm Other (Com Taped Removal Tim Criteria met Catheter damage I V Discontinued ischarged Per order col Removed by patien	Fr cm in Other (Right Anterior Posterior Lateral Superior Inferior Other (c External Jugular Foot Forearm Saphenous Scalp Subcutaneo Upper Arm Other (Com Taped Skin b Removal Time criteria met Catheter damage Orainage I V Discontinued Occlude ischarged Per order Per paticol Removed by patient Site cha	Fr cm in Other (Right Anterior Posterior Lateral Medial Superior Inferior Other (c External Jugular Foot Forearm Harr Saphenous Scalp Subcutaneous Wrist Upper Arm Other (Com Taped Skin barrier Removal Time Skin barrier Control Catheter damage Orainage In Voiscontinued Occluded Sischarged Per order Per patient/family Coll Removed by patient Site change	Fr cm in Other (Right Anterior Posterior Lateral Medial Proxim. Superior Inferior Other (c External Jugular Foot Forearm Hand Saphenous Scalp Subcutaneous Wrist Upper Arm Other (Com Taped Skin barrier Removal Time Criteria met Catheter damage Orainage I V Discontinued Occluded Sischarged Per order Per patient/family col Removed by patient Site change



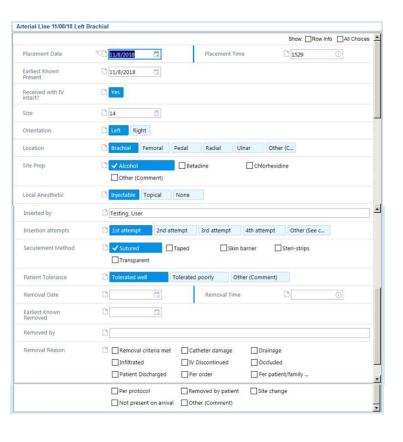
PIV Assessment

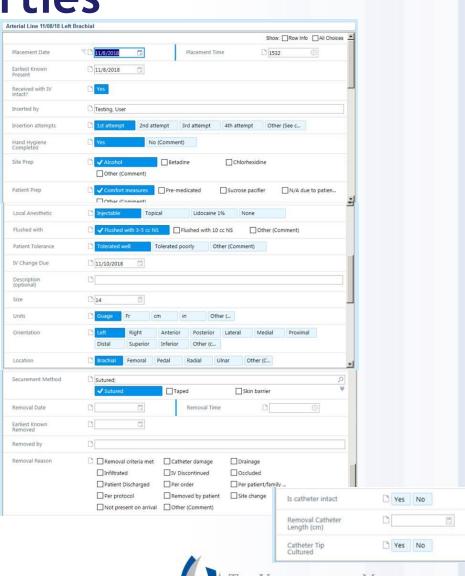
W / D	DI . D . ITT . 44100140 4544	F #
IV Properties	Placement Date/Time: 11/08/18 1514	Earliest Known Present: 11/08/18 Received with IV intact?: Yes IV
Site Assessment	0.0	
Line Status		
Dressing Type		
Dressing Status		
Dressing Intervention		
Tubing and Endcap		
Dressing Change Due		
Reason Not Rotated		

IV Properties	Placement Date/Time:	11/08/18 1519	Earliest Known Present: 11/08/18	Received with IV intact?: Yes
Site Assessment	0.0			
Line Status				
Reason Not Rotated				
Dressing Type				
Dressing Status				
Dressing Intervention				
Dressing Change Due				
Line Care				
Tubing Change Due				
Endcap Change Due				



Arterial Line Properties





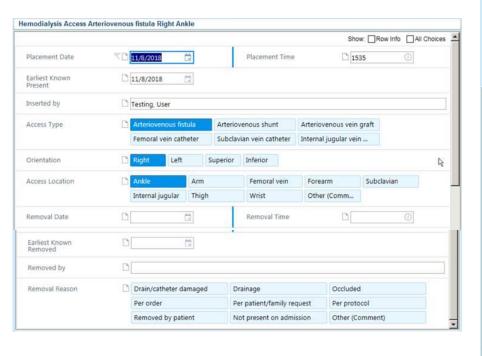
Arterial Line Assessment

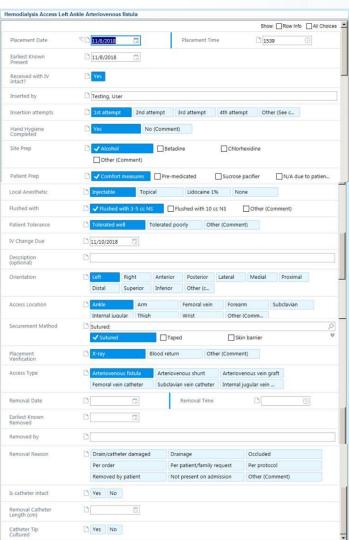
Art Line Properties	Placement Date/Time: 1	11/08/18 1529	Earliest Known Present: 11/08/18	Received with IV intact?: Yes	Size: 14
Site Assessment	٥٥				
Line Status					
Art Line Waveform					
Art Line Interventions					
Color/Movement/Sensation					
Dressing Type					
Dressing Status					
Dressing Intervention					
Dressing Change Due					
IV Tubing Changed				₽	

Arterial Line 11/08/18	Lett Brachial		
Art Line Properties	Placement Date/Time: 11/08/18 1532	Earliest Known Present: 11/08/18 Received with IV intact?: Yes	
Site Assessment	0.0		
Line Status			
Art Line Waveform			
Color/Movement/Sensation			
Dressing Type			
Dressing Status			
Dressing Intervention			
Dressing Change Due			
Line Care			
Tubing Change Due			
Endcap Change Due			



HD Properties







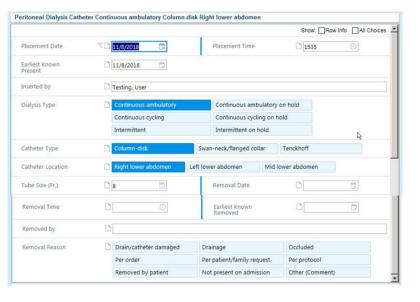
HD Assessment

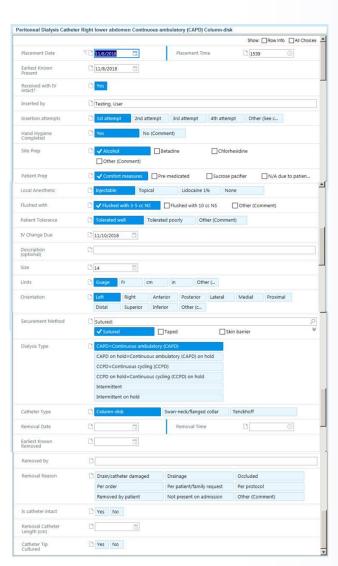
Hemodialysis Access	Arteriovenous fistula Right Ankle	
Hemodialysis Properties	Placement Date/Time: 11/08/18 1535	Earliest Known Present: 11/08/18 Inserted by: Testing, User Access
Site Assessment	٩٥	
AV Fistula		
Status		
Needle Gauge		
Access Assessment		
Dressing Intervention		
Dressing Status		
Verification by X-ray		
Site Condition		
Dressing		
Drainage Description		

Hemodialysis Properties	Placement Date/Time: 11/08/13	8 1539 Earliest Known Present: 11/08/18 Received with IV intact?: Yes
Site Assessment	ام ا	
Status		
Drainage Description		
Site Condition		
AV Fistula		
Needle Gauge		
Access Assessment		
Dressing Type		
Dressing Status		
Dressing Intervention		
Dressing Change Due		



PD Properties







PD Assessment

Peritonal Dialysis Properties	Placement Date/Time: 11/08/18 1535	Earliest Known Present: 11/08/18 Inserted by: Testing
Site Assessment	ا ا	
Dressing Intervention		
Dressing Status		
Dressing		
Drainage Description		

Peritonal Dialysis	Placement Date/Time: 11/08/18 1539	Earliest Known Present: 11/08/18 Received with IV intact?: Yes
Site Assessment	D.P.	
Drainage Description		
Site Condition		
Dressing Type		
Dressing Status		
Dressing Intervention		
Dressing Change Due		

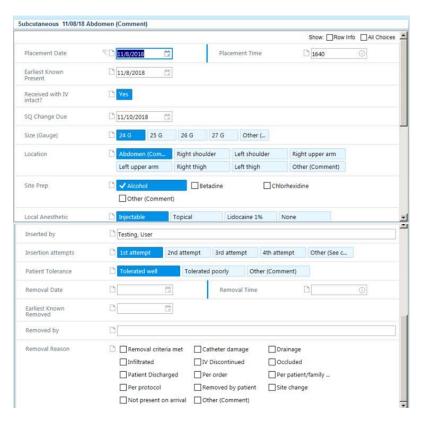


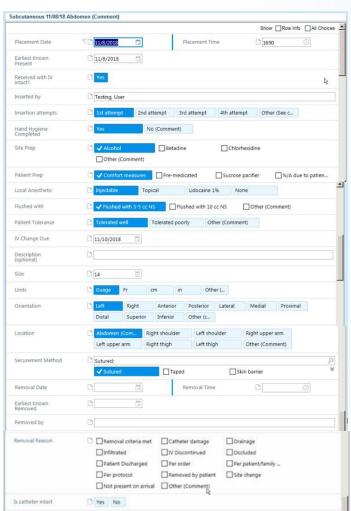
Phase Three: SQ, IO, Pacer Wires, IABP, VAD, Introducer, Nerve Block, and ECMO

Go-live date is December 18, 2018



SQ Properties







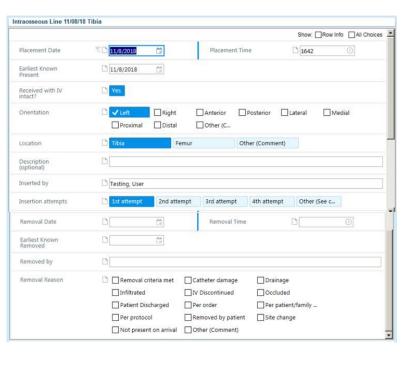
SQ Assessment

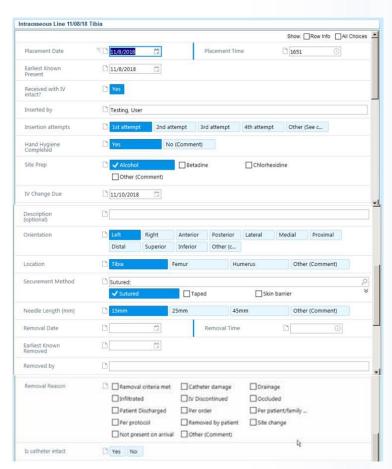
SQ Properties	Placement Date/Time: 11/08/18 1640	Earliest Known Present: 11/08/18	Received with IV intact?: Yes SQ
Site Assessment	٥٥		
Line Status			
Dressing Status			
Dressing Intervention			
Dressing Change Due			
Reason Not Rotated			

SQ Properties	Placement Date/Time: 11/08/18 1650	Earliest Known Present: 11/08/18 Received with IV intact?: Yes
Site Assessment	0,0	
Line Status		
Reason Not Rotated		
Dressing Type		
Dressing Status		
Dressing Intervention		
Dressing Change Due		



IO Properties







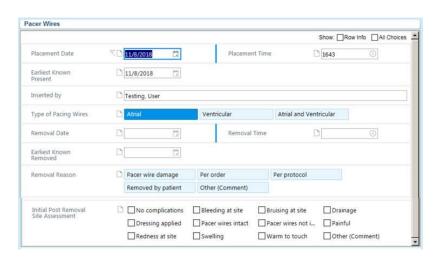
IO Assessment

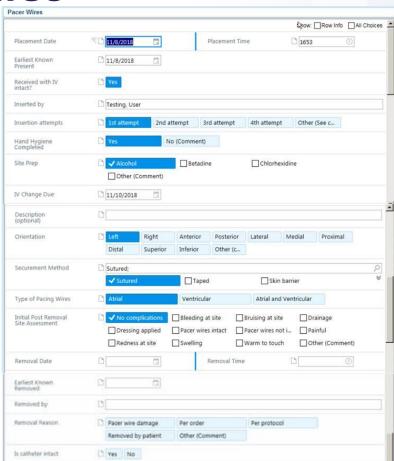
Line Properties	Placement Date/Time: 11/08/18 1642	Earliest Known Present: 11/08/18 Received with IV intact?: Yes
Line Status	٩٥	
Line Care		
Dressing Type		
Dressing Status		
Dressing Intervention		
Dressing Change Due		

Line Properties	Placement Date/Time: 1	11/08/18 1651	Earliest Known Present: 11/08/18	Received with IV intact?: Yes
Site Assessment	0,0			
Line Status				
Dressing Type				
Dressing Status				
Dressing Intervention				
Dressing Change Due				
Line Care				
Tubing Change Due				
Endcap Change Due				



Pacer Wire Properties







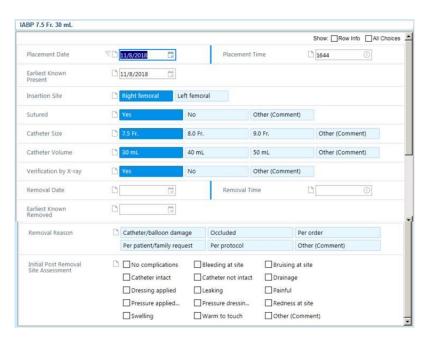
Pacer Wire Assessment

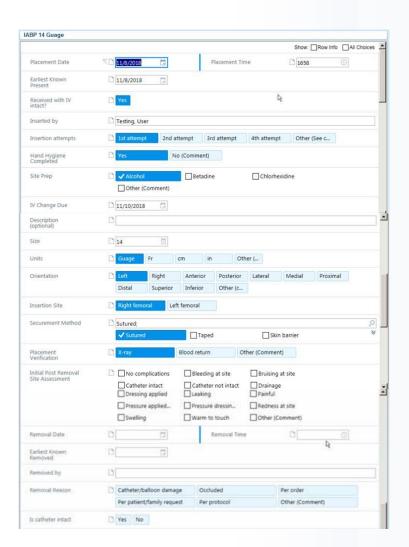
Pacer Wires			
Pacer Wire Properties	Placement Date/Time:	11/08/18 1643	Earliest Known Present: 11/08/18 Inserted by: Testing,
Pacer Wire Status	0,0		
Site Assessment			
How Pacer Wires are Secured			
Dressing Status			
Dressing Intervention			
Dressing Change Due			
Post Removal Complications			
Interventions			

Pacer Wires		
Pacer Wire Properties	Placement Date/Time: 11/08/18 1653	Earliest Known Present: 11/08/18 Received with IV intact?: Yes
Site Assessment	٥٥	
Pacer Wire Status		
How Pacer Wires are		
Dressing Type		
Dressing Status		
Dressing Intervention		
Dressing Change Due		
Post Removal		



IABP Properties







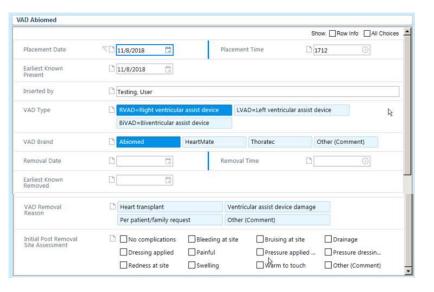
IABP Assessment

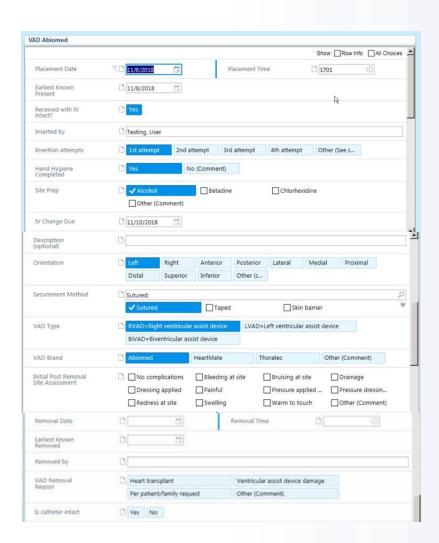
IABP 7.5 Fr. 30 mL		
IABP Properties	Placement Date/Time: 11/08/18 1644 Earliest Known Present: 11/08/18 Insertion S	te: Right
Site Assessment	٥٥	
Line Status		
Treatment		
Dressing		
Dressing Status		
Dressing Intervention		
Dressing Change Due		
Art Line Interventions		
Color/Movement/Sensation		
Post Removal Complications		
Interventions		

IABP 14 Guage		
IABP Properties	Placement Date/Time: 11/08/18 1658	Earliest Known Present: 11/08/18 Received with IV intact?: Yes
Site Assessment	٥٥	
Line Status	1	
Treatment		
Color/Movement/Sensation		
Dressing Type		
Dressing Status		
Dressing Intervention		
Dressing Change Due		
Line Care		
Tubing Change Due		
Endcap Change Due		
Post Removal		
Interventions		



VAD Properties







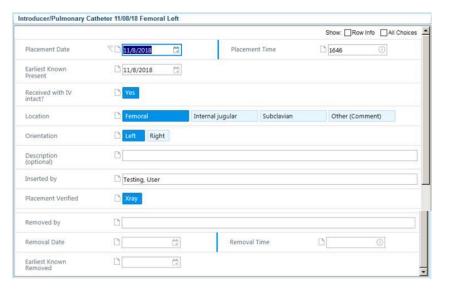
VAD Assessment

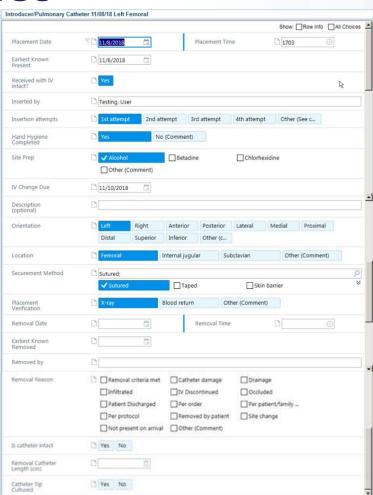
VAD Abiomed		
VAD Properties	Placement Date/Time: 11/08/18	3 1712 Earliest Known Present: 11/08/18 Inserted by: Testing, User VAD Type:
Site Location		
Site Assessment		
Dressing Status		A
Dressing Intervention		
Dressing Change Due		
Power Source		
Mode		
Post Removal		

VAD Abiomed				
VAD Properties	Placement Date/Time:	11/08/18 1701	Earliest Known Present: 11/08/18	Received with IV intact?: Yes
Site Assessment	٥٥			
Site Location				
Power Source				
Mode				
Dressing Type				
Dressing Status				
Dressing Intervention				
Dressing Change Due				
Post Removal				G.



Introducer Properties







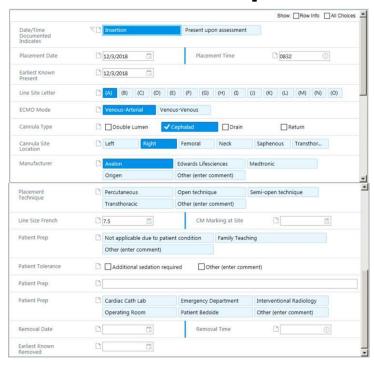
Introducer Assessment

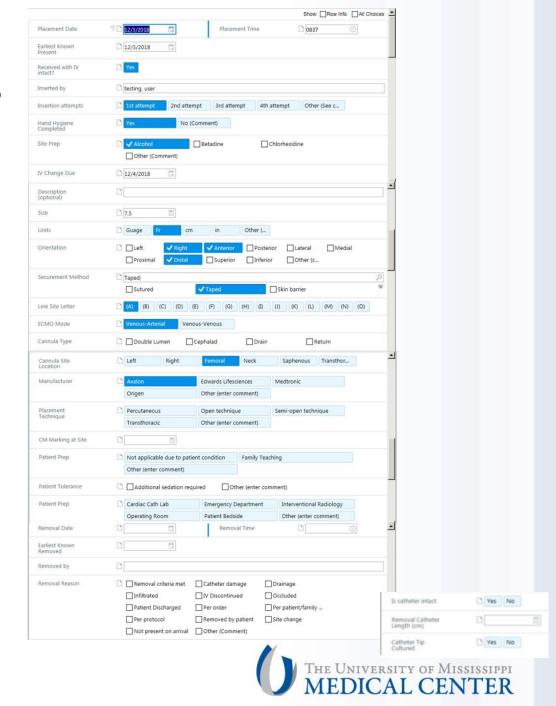
Introducer/Pulmonary Catheter 11/08/18 Femoral Left					
Properties	Placement Date/Time: 11/08/18 1646 Earliest Known Present: 11/08/18 Received with IV				
Specific Qualities	<u>م</u> ر				
Dressing Status					
Dressing Intervention					
Dressing Change Due					

Introducer/Pulmona	ry Catheter 11/08/18 Left Femore	al	-
Properties	Placement Date/Time: 11/08/18 1	703 Earliest Known Present: 11/08/18 Received with IV intact?: Yes	
Site Assessment	100		
Line Status			
Specific Qualities			
Dressing Type			
Dressing Status			
Dressing Intervention			
Dressing Change Due			



ECMO Properties





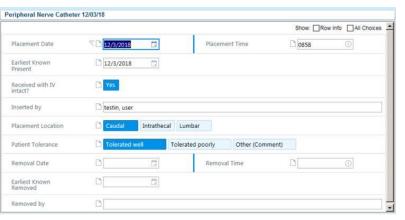
ECMO Assessment

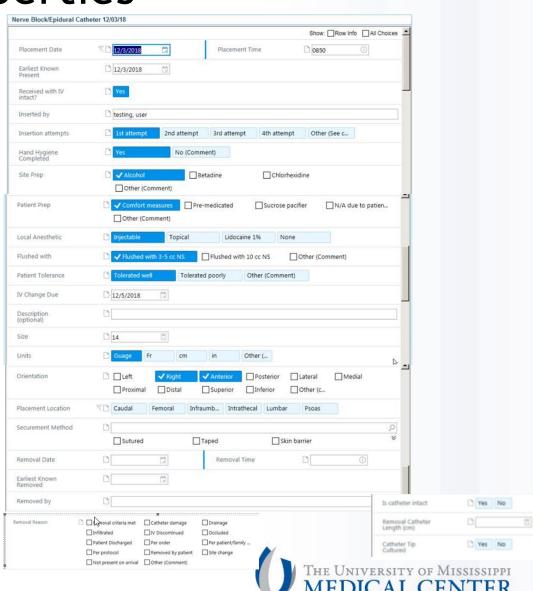
Line Properties	Placement Date/Time: 12/03/18 0832	2 Date/Time Documented Indicates: Insertion Earlies
Cannula/Site/Dressing WDL		
Cannula Securement		
Securement Method		
Cannula Exception		
Cannula Intervention		
Site Exception		
Site Intervention		

Line Properties	Placement Date/Time:	12/03/18 0837	Earliest Kn	own Present: 12/03/18	Received with IV
Site Assessment					
Cannula/Site/Dressing WDL					
Cannula Securement					
Securement Method					
Cannula Exception					
Cannula Intervention					
Site Exception					
Site Intervention					



Nerve Block Properties





Nerve Block Assessment

Peripheral Nerve Catheter 12/03/18		Nerve Block/Epidural Catheter 12/03/18		
Properties	Placement Date/Time:	12/03/18 0847 Earliest Known Present: 12/03/18 Received with IV intact?: Yes	Properties	Placement Date/Time: 12/03/18 0850 Earliest Known Present: 12/03/18 Received with IV intact?: Yes
Site Assessment			Site Assessment	
ine Status			Line Status	
Oressing Type			Dressing Type	
Dressing Status			Dressing Status	
ressing Intervention			Dressing Intervention	
ressing Change Due			Dressing Change Due	

*Only items that have changed are that the Line Status and Site Assessment rows now have additional options and are standard across other lines.



Questions?

