Usability Test

Moderator's Guide

Test Name						
Date:	Time:					
Administra	ator:					
Data Logg	er:					
Terminal I	D: Participant #					
PRIOR TO T	ESTING					
	Confirm schedule with participants					
	Ensure computer lab environment is running properly					
	Ensure testing packets are printed: Moderator's Guide with Data Log Worksheets, Participant Questionnaire, SUS, Informed Consent, and Non-Disclosure Agreement					
PRIOR TO E	ACH PARTICIPANT					
	Ensure a session of the EHR can be launched with					
	Ensure session is in Full Screen Mode (press F11)					
	Confirm participant has an assigned participant number					
	Ensure participant UN and PW are valid					
	Log-out to ensure Log-on screen is on the workstation					
	Save a blank .DOCX on the workstation desktop named: Part xx PC-xxxx (where xx is the participant #, and xxxx is the terminal ID)					
PRIOR TO E	ACH TASK					
	Ensure corresponding data log worksheet will be used					
	Ensure participant understands instructions					
	Ensure timer is reset and started once "Begin" has been announced					
AFTER EAC	H TASK					
	Stop timer when the participant announces "Done"					
	Capture screenshot and paste it to the .DOCX on the workstation desktop					
	Collect Task Rating from participant					
	Complete Data Log Worksheet for the corresponding task					
AFTER TEST	•					
	Ensure participant packet is complete including:					
	□Moderator's Guide with Data Log Worksheets, □Participant Questionnaire, □SUS, □Informed Consent, and □Non-Disclosure Agreement					

Orientation (10 minutes)

Thank you for participating in this test. Your input is very important to us. Our session today will last approximately two working days. During that time you will use an instance of an electronic health record.

There will be a number of tasks that will need to be completed as well as a few questions that will need to be answered. Each tasks will need to be completed on your own, at your own pace with minimal possible errors or deviations. We ask that you do them as quickly and efficiently as possible with the instructions that we have provided. Please complete the task and do not attempt to do more than what is instructed.

We must emphasize that we are not testing you or your ability to use the system- we are evaluating the usability of the system. We are not able to instruct or provide you with help on how to use the application beyond the provided instructions, but we may be able to provide help on other related issues. Please save your detailed comments until the end of the task or at the end of the session when we can discuss freely as a group.

Overall, we are interested in how easy (or how difficult) this system is to use, what features or functionality are useful to you, and how we could improve it. Please be honest with your opinions.

The information you provide us will be kept confidential. Your name and any other identifying information will be omitted and not be associated with your comments. Should you feel it necessary, you are able to withdraw your participation at any time during the testing.

The product you will be testing today includes the following applications within the CliniComp EHR: CPOE, Implantable Devices, Clinical Decision Support, Clinical Information Reconciliation, and Electronic Prescribing. Since we are testing specific functionality, the workflow many not seem complete, or the data may not make sense compared to your normal work processes.

To access the system you will be using a demo user and test patient record that correlate with your assigned participant number.

For each task, I will read the description to you and say "Begin." At that point, please perform the task and say "Done" once you believe you have successfully completed the task. I would like to request that you not talk aloud or verbalize while you are doing the tasks. I will ask you your impressions about the task once you are done.

Do you have any questions or concerns?

Preliminary Questionnaire (10 minutes)

Before beginning the EHR tasks we would like to collect some information for participant classification purposes. Again, all of the information that you provide will be kept confidential and your name will be omitted from your data.

Please take a moment to complete the Participant Questionnaire found in your test packet. If you have any questions, please do not hesitate to ask.

(Administer Participant Questionnaire)



Task 1: First Impression (10 minutes)

Please log in to the system using your assigned username and password. From the first page please select the PRODUCTION unit and then select your patient. This is the patient record with which you will be working with.

Please don't click on anything more

From this page please take a look at the EHR.

What do you notice? What are you able to do here? At first glance is anything that you would expect missing?

Notes / Comments:



Testing Scenario

James is a 65 year old male presenting to the hospital after suffering a near fall at home. He tripped and had a near fall, but hit his chest against the wall and is now complaining of some localized pain to the area. There is some bruising and swelling noted.

Task 2:	Demographics	(45 seconds)
---------	--------------	--------------

Cycle 1

(Start timer)

You are interviewing the patient and need to ask a few demographic questions. Under the MU3 Demographics tab, please chart the following details:

Date of Birth: 01/15/1951 Sexual Orientation: Straight or heterosexual Gender Identity: Identifies as Male Sex: M

Participant Steps Recording

Task 2 Optimal Path (6 steps) (check box as participant completes the step)		h devia	Total		
Clicks [MU 3 Demographics] tab					
□ Types in Date Of Birth					Task Time:
Chooses correct Sexual Orientation					(in seconds)
Chooses correct Gender Identity					
□ Chooses M					
□ Clicks on the Save button					# of Steps: (sum of all step checkboxes)

(Stop timer and capture a screenshot after the participant completes the task)

Participant's Path

Correct

□ Minor Deviations

□ Major Deviations (describe deviations below)

Deviation description and observations: ___

Task Completion



□ Success:

□ Failure:

Easily Completed

 \Box Completed with Difficulty

 $\hfill\square$ Did not reach desired outcome

□ Abandoned

 $\hfill\square$ Allotted time expired

Participant Rating

Overall, on a scale of 1 to 5, where 1 is "Very Easy" and 5 is "Very Difficult," this task was: ______

Cycle 1

(Start timer)

CliniComp, Intl.

Task 3: Clinical Decision Support (CDS) (80 seconds)

In the Overview tab there is a CDS notification from the information you entered in Task 2. Please respond to the system's CDS notification and place/save an order based on the recommendation. The medication and provider is listed below:

 Order:
 PREVNAR (PEDIATRIC PNEUMOCOCCAL CONJ VACCINE)

 Provider:
 Spencer, John MD

Participant Steps Recording

Task 3 Optimal Path (7 steps) (check box as participant completes the step)		s for eac	h devia	tion an	d descr	ibe	Total
Highlights notification and reviews message							
Clicks on [Rx] button							Task Time:
Enters and chooses new order: [PREVNAR]							(in seconds)
□ Clicks on Order							
Enters Provider's name							
Clicks [Apply/Close]							
□ Clicks on the Save button							# of Steps: (sum of all step checkboxes)

(Stop timer and capture a screenshot after the participant completes the task)

Participant's Path

 \Box Correct

□ Minor Deviations

□ Major Deviations (describe deviations below)

Deviation description and observations: _

Task Completion

□ Success:

□ Failure:

 $\hfill\square$ Did not reach desired outcome

 \Box Abandoned

 \Box Allotted time expired

□ Easily Completed

□ Completed with Difficulty



Participant Rating

Overall, on a scale of 1 to 5, where 1 is "Very Easy" and 5 is "Very Difficult," this task was: ______

Task 4: Medication Allergy List and Reconciliation (160 seconds)

Cycle 1

(Start timer)

The patient states he was seen at another health facility and had a reaction to another medication that he cannot recall. Under the MU2ReconcileMedAllergy please import and reconcile the outside list as well as his known medication allergy listed below:

Туре:	Drug
Drug Name:	Penicillin G Sodium
Symptoms:	Skin Rashes Hives
Severity:	Mild

Participant Steps Recording

Task 4 Optimal Path (11 steps) (check box as participant completes the step)		s for eac	h devia	Total		
□ Clicks [Medication Allergy] tab						
□ Chooses source option						
Clicks [Insert PDF]						
Uploads correct PDF file						T (- T)
Clicks [Open]						Task Time: (in seconds)
□ Chooses type of allergy						
□ Chooses correct allergy						
□ Completes Symptom and Severity section						
□ Clicks [+] button						
□ Repeats steps for second allergy						
□ Clicks on the Save button						# of Steps:
						(sum of all step checkboxes)

(Stop timer and capture a screenshot after the participant completes the task)

Participant's Path

□ Correct

□ Minor Deviations

□ Major Deviations (describe deviations below)

Deviation description and observations:

Task Completion

□ Easily Completed

 \Box Completed with Difficulty

 \Box Success:

□ Failure:

 \Box Did not reach desired outcome

Abandoned

 $\hfill\square$ Allotted time expired

Participant Rating

Overall, on a scale of 1 to 5, where 1 is "Very Easy" and 5 is "Very Difficult," this task was: ______

Comments:

Usability Test Moderator's Guide CliniComp, Intl. Confidential and Proprietary

Task 5: Medication List and Reconciliation (180 seconds)

Cycle 1

(Start timer)

The patient has provided his home medications, in addition to information from the other health facility. Under the MU2MedReconList1 please import and reconcile his medications into one list. (Two list into one)

Drug Name:	ASPIRIN CHEWABLE {81MG TBCH}pla
Dose:	81mg
Route:	PO
Frequency:	Daily
Drug Name:	CLOPIDOGREL {75MG TAB} (PLAVIX)
Drug Name: Dose:	CLOPIDOGREL {75MG TAB} (PLAVIX) 75mg
0	<i>t j t j</i>

Participant Steps Recording

Task 5 Optimal Path (13 steps) (check box as participant completes the step)		s for eac	h devia	Total		
Clicks [Medications] tab						
□ Chooses source option						
Clicks [Insert PDF]						
Uploads correct PDF file						
Clicks [Open]						
□ Types in Medication name						Task Time:
Enters Dose						(in seconds)
Enters Route						
Enters Frequency						
Clicks [+] button						
□ Repeats steps for second medication						
\Box Repeats steps for third medication						
□ Repeats steps for fourth medication						
□ Saves						# of Steps: (sum of all step checkboxes)

(Stop timer and capture a screenshot after the participant completes the task)

Participant's Path

Correct Minor Deviations Deviation description and observations: Deviation description and observations: Deviation description descrip	Comp, Intl.		Usability Test Moderator
Deviation description and observations:			
Task Completion Success: Failure: Easily Completed Did not reach desired outcome Completed with Difficulty Abandoned Allotted time expired Participant Rating	Correct	□ Minor Deviations	□ Major Deviations (describe deviations below)
Success: Failure: Easily Completed Did not reach desired outcome Completed with Difficulty Abandoned Allotted time expired	Deviation description	and observations:	
Success: Failure: Easily Completed Did not reach desired outcome Completed with Difficulty Abandoned Allotted time expired			
Easily Completed Did not reach desired outcome Completed with Difficulty Abandoned Allotted time expired	Task Completion		
Completed with Difficulty Abandoned Allotted time expired Participant Rating	□ Success:		Failure:
Participant Rating	Easily Complete	ed	\Box Did not reach desired outcome
Participant Rating	\Box Completed wit	h Difficulty	□ Abandoned
			\Box Allotted time expired
Overall, on a scale of 1 to 5, where 1 is "Very Easy" and 5 is "Very Difficult," this task was:	Participant Rating		
	Overall, on a scale of 1	L to 5, where 1 is "Very	Easy" and 5 is "Very Difficult," this task was:
Comments:	Comments:		

(Start timer)



Task 6A: Computer Physician Order Entry (CPOE)- Diagnostic Imaging (80 seconds) Cycle 1

The patient needs a diagnostic imaging study of his chest. Using CPOE, place an order for an x-ray including the following details:

Diagnostic:Chest X-ray PAFrequency:x1Priority: STATProvider:Spencer, John MD

Category: Radiology: Radiology

Participant Steps Recording

Task 6A Optimal Path (7 steps) (check box as participant completes the step)		h devia	tion an	d descr	ibe	Total
Clicks [Order Entry]						
□ Enters correct xray in new order box and selects						Task Time: (in seconds)
□ Opens pending order						(in seconds)
□ Changes Frequency x1						
□ Changes Priority STAT						
Chooses Provider						
□ Saves						# of Steps: (sum of all step checkboxes)

Participant's Path

□ Correct

Minor Deviations

(Stop timer and capture a screenshot after the participant completes the task)

□ Major Deviations (describe deviations below)

Deviation description and observations: ___

Task Completion

□ Success:

□ Failure:

Easily Completed

 \Box Completed with Difficulty

 \Box Did not reach desired outcome

 \Box Abandoned

 \Box Allotted time expired

Participant Rating

Overall, on a scale of 1 to 5, where 1 is "Very Easy" and 5 is "Very Difficult," this task was:

Cycle 1



	-
The x-ray tech comes to you asking if you want a lateral as well. Using CPOE, please rewrite the order	to the new

Chest X-ray PA and Lateral Diagnostic:

Task 6B: CPOE- Editing a Diagnostic Imaging Study (60 seconds)

Category: Radiology: Radiology

order listed below.

Participant Steps Recording									(Start timer)		
Task 6B Optimal Path (5 steps) (check box as participant completes the ste	p)				ch devic	Total					
Clicks [Order Entry]									Table Theory		
□ Highlights Chest X-ray PA Order									Task Time: (in seconds)		
Click ReWrite Order icon											
Enters new order in order name	field										
□ Saves									# of Steps: (sum of all step checkboxes)		
(Stop timer and capture a screenshot after the participant completes the task) Participant's Path Correct Informations Informations Informations Information and advantage and a second											
Deviation description and observat	ions:										

Task Completion	
□ Success:	□ Failure:
Easily Completed	\Box Did not reach desired outcome
\Box Completed with Difficulty	Abandoned
	\Box Allotted time expired

Participant Rating

Overall, on a scale of 1 to 5, where 1 is "Very Easy" and 5 is "Very Difficult," this task was: _____

Task 7A: CPOE- Entering a Medication Order (60 seconds)

Cycle 1

(Start timer)

The patient needs a dose of his warfarin. Using CPOE, place an order for the medication detailed below:

Medication:WARFARIN {10MG TAB} (COUMADIN)Frequency:x1Priority: STATProvider:Spencer, John MD

Participant Steps Recording

Task 7A Optimal Path (5 steps) (check box as participant completes the step)	Deviations (check a box for each deviation and describe below)							Total
□ Types medication into new order box								Task Time:
□ Changes Frequency x1								(in seconds)
□ Changes Priority STAT								
Chooses Provider								
□ Saves								# of Steps: (sum of all step checkboxes)
	(Stop	timer	and cap	oture a	screen	shot af	ter the	participant completes the task)

Participant's Path

□ Correct

□ Minor Deviations

□ Major Deviations (describe deviations below)

Deviation description and observations: _____

Task Completion	
□ Success:	Failure:
\Box Easily Completed	\Box Did not reach desired outcome
\Box Completed with Difficulty	□ Abandoned
	\Box Allotted time expired

Participant Rating

Overall, on a scale of 1 to 5, where 1 is "Very Easy" and 5 is "Very Difficult," this task was:

Task 7B: CPOE Drug-Drug, Drug-Allergy Interaction Checks (20 seconds)

Cycle 1

(Start timer)

An order decision support has appeared for a possible drug-drug interaction. Please review and how you will proceed.

Participant Steps Recording

Task 7B Optimal Path (2 steps) (check box as participant completes the step)	Deviations (check a box for each deviation and describe below)							Total
□ Clicks [CDS] and reviews message tab								Task Time:
□ Clicks OK if appropriate								(in seconds)
								# of Steps: (sum of all step checkboxes)
Participant's Path	(Stop	timer	and ca	oture a	screen	shot af	ter the	participant completes the task)
Correct Information Deviations Deviation description and observations:		-						ns below)
Task Completion								
Success:	🗆 Fa	ailure:						
Easily Completed			Did	not re	ach de	esired	outco	ome
\Box Completed with Difficulty				ndone				
			Allo	ted ti	me ex	pired		
Participant Rating								
Overall, on a scale of 1 to 5, where 1 is "Very Ea	sy" ar	nd 5 is	"Very	' Diffic	cult," t	his ta:	sk wa	s:
Comments:								

Task 7C: CPOE- Editing a Medication Order (60 seconds)

Cycle 1

(Start timer)

The patient took some Tylenol earlier. Since he took Tylenol you need to discontinue the Tylenol order in CPOE. Using CPOE, please discontinue the medication that is listed below:

Medication:Tylenol {325mg TAB} (TYLENOL)Details:650 mg PO x1 STATStatus:ActiveProvider:Spencer, John MD

Participant Steps Recording

Task 7C Optimal Path (5 steps) (check box as participant completes the step)			s for eac	Total				
□ Highlights Existing Active Order								
Clicks [DC] button								Task Time:
□ Enters Stop Time icon to enter current time as DC Time								(in seconds)
Enters Provider's name								
□ Clicks [OK]								# of Steps: (sum of all step checkboxes)
(Stop timer and capture a screenshot after the participant completes the task) Participant's Path Correct IMinor Deviations IMajor Deviations (describe deviations below) Deviation description and observations:								
Task Completion Success: Easily Completed Completed with Difficulty	□ Fa] Did I			esired	outco	
Participant Rating] Allot	ted ti	me ex	pired		

Overall, on a scale of 1 to 5, where 1 is "Very Easy" and 5 is "Very Difficult," this task was: ______

Cycle 1

(Start timer)

CliniComp, Intl.

Task 8: CPOE- Entering a Laboratory Order (60 seconds)

Since the patient is taking Plavix daily, you want to check if his range is range is therapeutic. Using CPOE, please order the lab that is listed below:

Laboratory Order:	Prothrombin Time / International Normalized Ratio (PT/INR)
Frequency:	x1
Priority:	STAT
Provider:	Spencer, John MD

Participant Steps Recording

Task 8 Optimal Path (6 steps) (check box as participant completes the step)	Deviations (check a box for each deviation and describe below)							Total
Enters and chooses correct laboratory order								Task Time: (in seconds)
□ Clicks on order								
Enters Frequency x1								
Enters Priority STAT								
Enters provider's name								
Clicks [Applu/Close] button								
□ Saves								# of Steps: (sum of all step checkboxes)

(Stop timer and capture a screenshot after the participant completes the task)

Participant's Path

□ Correct

□ Minor Deviations

□ Major Deviations (describe deviations below)

Deviation description and observations: _

Task Completion

□ Easily Completed

 \Box Completed with Difficulty

_	
	Cueseee
	Success:

□ Failure:

Did not reach desired outcome

- □ Abandoned
- \Box Allotted time expired

Participant Rating

Overall, on a scale of 1 to 5, where 1 is "Very Easy" and 5 is "Very Difficult," this task was: ______

Task 9: Implantable Device List (60 seconds)

The patient states he had a left hip replacement. You recall that there have been major hip replacement recalls for DePuy, Stryker, and Zimmer implant products. Please verify that the patient's implantable device list is current, his hip replacement is not one of those from a manufacturer listed above, and then mark that you have reviewed it.

Participant Steps Recording								(Start timer)
Task 9 Optimal Path (5 steps) (check box as participant completes the step)		iation :k a box v)		ch devia	Total			
Clicks on [Implant Devices] tab								
□ Clicks on [View Details] hyperlink under Actions column and reviews information								Task Time: (in seconds)
□ Clicks on [Close] button								
Clicks on [Mark as Reviewed] button								
□ Clicks on [Yes] button								# of Steps: (sum of all step checkboxes)
Participant's Path Correct Information Advancement Deviation description and observations:	□ M	1ajor [Deviat	ions ((descrii	be dev	viation	ns below)
Task Completion Success: Easily Completed Completed with Difficulty	Fa		Did			esired	outco	 ome
	Abandoned Allotted time expired							

Participant Rating

Overall, on a scale of 1 to 5, where 1 is "Very Easy" and 5 is "Very Difficult," this task was:





Task 10: Problem List (180 seconds)

Cycle 1

After reviewing the radiology results, please document under the MU2ReconcileProblems tab the patient's new diagnosis that is listed below as well as upload and reconcile his problem list that was provided from another facility. If the field is UNKNOWN then please leave it blank (Two list into one)

Date: 12/07/2016 Problem: Closed fracture of metacarpal bone (disorder) Status: Active Acute/Chronic: Acute Diagnosed Date: 12/07/2016

Participant Steps Recording (Start timer) **Deviations** Task 10 Optimal Path (13 steps) (check a box for each deviation and describe Total (check box as participant completes the step) below) □ Clicks [Problems] tab □ Chooses source option □ Clicks [Insert PDF] □ Uploads correct PDF file □ Clicks [Open] Task Time: □ Types in Problem (in seconds) Enters Status □ Enters Acute □ Enters diagnosed date □ Clicks [+] button □ Repeats steps for second problem \square \square \square \square \square □ Repeats steps for third problem □ Saves # of Steps: (sum of all step checkboxes) (Stop timer and capture a screenshot after the participant completes the task)

Participant's Path

□ Correct

□ Minor Deviations

□ Major Deviations (describe deviations below)

Usability Test Moderator's Guide CliniComp, Intl. Confidential and Proprietary

Deviation description and observations:	
Task Completion	
□ Success:	Failure:
Easily Completed	\Box Did not reach desired outcome
\Box Completed with Difficulty	□ Abandoned
	\Box Allotted time expired
Participant Rating	
Overall, on a scale of 1 to 5, where 1 is "Ve	ery Easy" and 5 is "Very Difficult," this task was:



Task 11: Medication Reconciliation (45 seconds)

Cycle 1

(Start timer)

Please complete the discharge medication reconciliation and mark what medications will be continued and stopped by following the instructions listed below:

Tylenol: Continue Plavix: Continue Lipitor: Continue Aspirin: Continue

Participant Steps Recording

Task 11 Optimal Path (6 steps) (check box as participant completes the step)	Deviations (check a box for each deviation and describe below)						Total	
Clicks [Discharge] tab								Task Time:
Continues Tylenol								(in seconds)
Continues Plavix								
Continues Lipitor								
Continues Aspirin								
□ Clicks on [Reconcile and Sign]								# of Steps:
								(sum of all step checkboxes)
Participant's Path	(Stop	timer	and caj	oture a	screen	shot af	ter the	participant completes the task)
□ Correct □ Minor Deviations		lajor D	Deviat	ions (a	descril	be dev	viatior	ns below)
Deviation description and observations:								
Task Completion								
□ Success:	🗆 Fa	ailure:						

□ Easily Completed

 \Box Completed with Difficulty

- \Box Did not reach desired outcome
- \Box Abandoned
- □ Allotted time expired



Participant Rating

Overall, on a scale of 1 to 5, where 1 is "Very Easy" and 5 is "Very Difficult," this task was: _____

Comments:

Usability Test Moderator's Guide CliniComp, Intl. Confidential and Proprietary

Cycle 1



Task 12: e-Prescribing (180 seconds)

The patient is now ready to go home and is requesting some tylenol. There is no pharmacy listed, but he provided you with the one he would like to use. Using eRx, place an order for the medication below as well as choose the pharmacy he requested:

Medication:	ACETAMINOPHEN {325MG TAB} (TYLENOL)
Directions:	take 3 tabs PO Q6H PRN for pain
Quantity:	100
Form:	Tablet
Refills:	0 (Zero)

Pharmacy: VA Pharmacy 10.6MU

Participant Steps Recording								(Start timer)
Task 12 Optimal Path (15 steps) (check box as participant completes the step)	Deviations (check a box for each deviation and describe below)				Total			
\Box Types and chooses correct medication								
Enters prescription directions								
Enters correct Quantity								
Enters correct Form								
Enters correct refills								Task Time:
Clicks [Review] button								(in seconds)
Clicks [Change Dispensing Pharmacy]								
Types in pharmacy name and clicks [Search]								
□ Highlights the pharmacy resulted								
Clicks [Select] button								
Clicks [Send] button								
□ Saves								# of Steps:
								(sum of all step checkboxes
	(Stop	timer	and ca	oture a	screen	shot af	ter the	participant completes the tas

Participant's Path

□ Correct

□ Minor Deviations

□ Major Deviations (describe deviations below)

Usability Test Moderator's Guide CliniComp, Intl. Confidential and Proprietary

Deviation description and observations	:			
Task Completion				
□ Success:	□ Failure:			
\Box Easily Completed	\Box Did not reach desired outcome			
\Box Completed with Difficulty	□ Abandoned			
	\Box Allotted time expired			
Participant Rating				
Overall, on a scale of 1 to 5, where 1 is "	Very Easy" and 5 is "Very Difficult," this task was:			
Comments:				

(this concludes the first cycle)