EHR Usability Test Report of EHRs-C v. 0.9.25

Product: EHRs-C Version: v. 0.9.25

Testing dates: 5/16/2018 – 5/18/2018
Report date: 11/12/2018
Report prepared by: Kellie Carlton and Michael Huffaker
Contact Person: Derick Veliz. IT specialist
35 Braintree Hill Office Park # 301
Braintree, MA 02184

Table of Contents

Executive Summary 2
Introduction 4
Method 4
Participants 4
Study Design 5
Tasks 5
Procedure 5
Test Location 5
Test Environment 5
Test Forms and Tools 5
Participant Instructions 6
Usability Metrics 6
Results 7
Data Analysis and Reporting 7
Discussion of the Findings 9
Appendices 10
Appendix A - Participant Scripts 10
Appendix B – Participant Instructions 26

Executive Summary

A usability test of EHRs-C v. 0.9.25 was conducted on 5/16/2018 to 5/18/2018 from Bristol County Sheriff's Office by CPS staff. The purpose of this test was to test and validate the suitability, usability and safety of the EHRs-C v. 0.9.25, the EHR Under Test (EHRUT).

During the usability test, 10 healthcare providers matching the target demographic criteria served as participants and used the EHRUT in simulated, but representative tasks.

This study collected data on 7 tasks typically conducted within an EHR, creating and maintaining patient:

- Medication orders
- Medication lists
- Laboratory orders
- Imaging orders
- Demographics
- Allergy lists
- Problem Lists

The medication and medication list tasks were combined into one script.

The administrator introduced the test and associated scripts and instructed participants to complete them using the EHRUT. The administrator did not give the participant assistance in how to complete the task.

The following types of data were collected for each participant, for each script:

- Success or failure in completing the script steps.
- Elapsed time to complete the tasks (minutes)
- Participant's satisfaction ratings of the system for that task

All participant data was de-identified – no correspondence could be made from the identity of the participant to the data collected. Various recommended metrics, in accordance with the examples set forth in the NIST Guide to the Processes Approach for Improving the Usability of Electronic Health Records, were used to evaluate the usability of the EHRUT.

The test philosophy was to generate realistic observations about system use and issues. To that end, the scripts were executed by real users, at their own desks, with their own computers, on their on schedules. Because of this, no path data was collected; the time to do a task subsumes the need and task completion is more important than the path taken. What follows is a summary of the performance and rating data collected on the EHRUT.

Task	N	Task Success (SD)	Path Deviation (Real / Optimal)	Task Time (SD)	Task Time (Real / Optimal)	Error (SD)	Task Ratings (SD)
Medication orders /lists	10	100 (0)	N/A	7(.003)	4 (1.8)	0 (0)	4 (.9)
Laboratory orders	10	100 (0)	N/A	5 (.002)	2 (1.4)	0 (0)	4 (.8)
Imaging orders	10	100 (0)	N/A	7 (.002)	3(1.5)	0 (0)	4 (.6)
Demographics	10	100 (0)	N/A	4 (.001)	2 (1.1)	0 (0)	4 (.8)
Allergies	10	100 (0)	N/A	3 (.002)	2 (1.1)	0 (0)	4 (.9)
Problem lists	10	100 (0)	N/A	4(.001)	2(1.5)	0(0)	4 (.9)

User satisfaction:

Users were generally satisfied with the system. This is significant, given that the EHRUT is very different from the EHR that the participants were currently using.

Major Findings

This evaluation demonstrated that the EHRUT is an effective system that is quickly learned. All tasks were completed. Most participants had never used it before. Also the interface diverges significantly from the long standard correctional 10 part folder format and users were able to easily adapt.

Areas for Improvement

Navigation - the scripts were quite detailed and laid out how to get the functions. The most common functions will quickly be learned - it is the uncommon ones where navigation needs to be clear.

Required fields – the system does not clearly indicate required or invalid form fields. This can slow down and frustrate data entry.

Efficient task completion – after navigation and required field marking changes (both of which will improve efficiency) improvements to task efficiency should be considered. But effectiveness must be maintained.

Introduction

The EHRUT tested was EHRs-C v. 0.9.25. It was designed to provide tools for correctional health care providers. The usability testing attempted to represent realistic exercises and conditions in order to assess system safety and usability.

Method

Participants

A total of 10 participants were involved, all experienced correctional providers. Their backgrounds:

#	Gender	Age	Education	Role / Title	Professional Experience	Computer Experience	Product Experience	Assistive Technology Needs
1	F	37	High School Diploma	Regional Administrative Assistant	15 years	12 months	0 months	None
2	F	45	Master's Degree	RN, Regional Manager of Education and Training	20+ years	12 months	0 months	None
3	M	46	Bachelor's Degree	IT Support	5 years	12 months	12 months	None
4	F	27	High School Diploma	Administrative Assistant	10 years	12 months	3 months	None
5	F	54	Associate's Degree	Health Services Administrator	20 years	6 months	0 months	None
6	F	33	High School Diploma / Nursing Diploma Program	Nursing Supervisor	11 years	12 months	3 months	None
7	F	48	Associate's Degree	Director of Nursing	12 years	12 months	6 months	None
8	F	50	Bachelor's Degree	Regional Director	20 years	6 months	6 months	None
9	F	33	High School Diploma	IT Support	7 years	12 months	12 months	None

10	F	33	Master's Degree	Regional Mental Health Director	8 years	12 months	0 months	None

Study Design

The objective of the test was to gather information about system usability and safety for the product's intended use in a correctional setting with experienced correctional providers. Data was reset for each user to reflect the script's assumptions. Each step of the script was marked Pass/Fail by the participant to note their progress and any troublesome points.

Script execution was self-scheduled, reflecting the realities of the environment.

Tasks

There were six tasks all tied to basic patient information: demographics, medications, allergies, problems, laboratory and imaging orders. Among the objectives were the creation, display, alteration and disabling of items. The system does not allow deletion of anything. Things can be disabled but never deleted.

Procedure

Scripts (see Appendix A) were done for each task to cover the needed functions. Forms included the steps and data to be recorded. These were presented to the participants. They completed the scripts as they could,from their own work stations within their own schedules.

Test Location

Participants completed the scripts from the own workstations within the Bristol County Sheriff's Office (BCSO).

Test Environment

Users ran the application on typical desktop systems – keyboard, mouse and monitor running on MS Windows. The desktops were configured and secured by the BCSO IT department.

The EHRUT is a browser based application accessible through an internet connection. Participants had the XXXXXXX browser installed on their system with network access to the site; nothing else is required.

Test Forms and Tools

See Appendix A for the task participant scripts.

Participant Instructions

Appendix B provides the script used to instruct the evaluator on the testing process.

Each script step received a pass or fail. A pass was given for expected results and no issues, a fail if there were unexpected results or other perceived issues.

Usability Metrics

The system was evaluated for effectiveness, efficiency and satisfaction from the script results generated by each participant. Collected for each participant:

- Script start and end times
- Pass/Fail for each script step
- Their overall assessment (1 as very difficult, 5 as very easy)

Derived from the participant logs were:

- Task success
- Task elapsed time

The following table details how the tasks were scored, errors defined and elapsed time evaluated:

Effectiveness: Task Success	A task was counted as a "Success" if the participant was able to achieve the correct outcome without assistance. The total number of successes were calculated for each task and then divided by the total number of times that task was attempted. The results are provided as a percentage. Task times were recorded for successes. Observed task times were divided by the optimal time for each task as a measure of efficiency.
Effectiveness: Task Failures	If the participant abandoned the task or did not reach the correct answer the task was counted as a "Failure." No task times were taken for such. The total number of errors was calculated for each task and then divided by the total number of times that task was attempted.
Efficiency: Task Deviations	The participant's path (i.e., steps) through the application was not recorded given script instructions and the emphasis on realistic conditions.
Efficiency: Task Time	Task elapsed time was calculated from the script start and end times logged by each participant. Only task times for tasks that were successfully completed were included in the average task time analysis. Average time and standard deviation was calculated for each task.

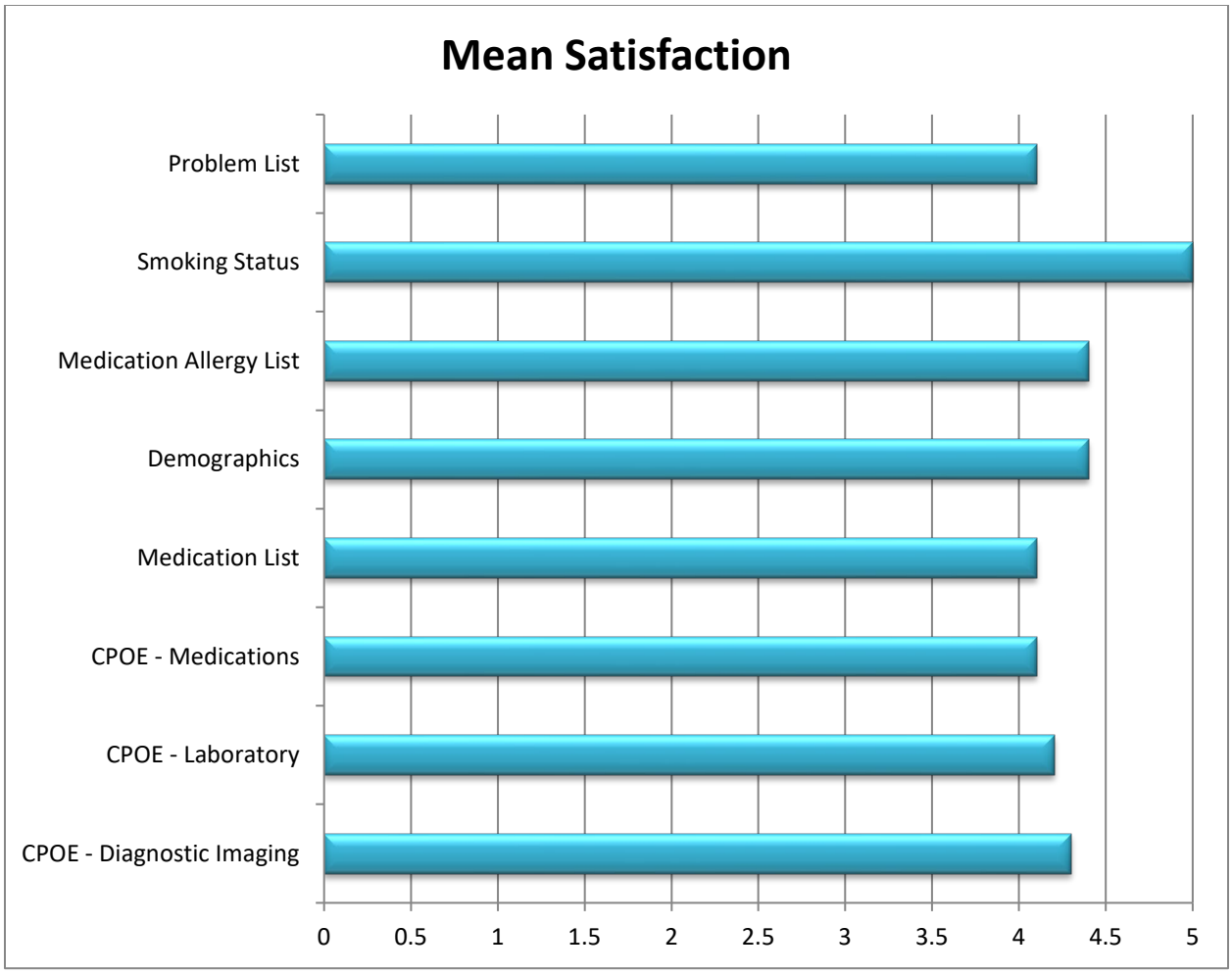
	The optimal task time was derived from the actual time of an expert user working under real conditions.
Satisfaction: Task Rating	Participant's subjective impression of the ease of use was measured by an end of script question. Overall Assessment was numeric, on a scale of 1 (very difficult) to 5 (very easy). These data are averaged across all participants.

Results

Data Analysis and Reporting

The results as calculated according to the methods specified in the Data Scoring section above:

Task	N	Task Success (SD)	Path Deviation (Real / Optimal)	Task Time (SD)	Task Time (Real / Optimal)	Error (SD)	Task Ratings (SD)
Medication orders /lists	10	100 (0)	N/A	7(.003)	4 (1.8)	0 (0)	4 (.9)
Laboratory orders	10	100 (0)	N/A	5 (.002)	2 (1.4)	0 (0)	4 (.8)
Imaging orders	10	100 (0)	N/A	7 (.002)	3(1.5)	0 (0)	4 (.6)
Demographics	10	100 (0)	N/A	4 (.001)	2 (1.1)	0 (0)	4 (.8)
Allergies	10	100 (0)	N/A	3 (.002)	2 (1.1)	0 (0)	4 (.9)
Problem lists	10	100 (0)	N/A	4(.001)	2(1.5)	0(0)	4 (.9)


Mean Satisfaction
Problem List
Smoking Status
Medication Allergy List
Demographics
Medication List
CPOE - Medications
CPOE - Laboratory
CPOE - Diagnostic Imaging
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5

Discussion of the Findings

Effectiveness

The EHRUT was effective in letting the users get the tasks done; all participants successfully completed all the tasks.

Efficiency

Most tasks were completed within an acceptable time (150% of the optimal time). These times will improve with training and experience. The first design goal of the system was safety, letting users get the tasks done correctly and that was met.

Satisfaction

Users were generally satisfied with the system. This is significant, given that the EHRUT is very different from the EHR that the participants were currently using. There do remain problems with some users who have issues with computers in general. Given the target user group, correctional health and mental health care providers, this will be the case regardless of the system due to their demographics.

Major Findings

This evaluation demonstrated that the EHRUT is an effective system that is quickly learned. Most participants had never used it before. Also the interface diverges significantly from the long standard correctional 10 part folder and users were able to easily adapt.

Areas for Improvement

Navigation - the scripts were quite detailed and laid out how to get the functions. This will not be case in general and steps need to be taken to make functionality location clear. The most common functions will be covered in training and wil be quickly be learned - it is the uncommon ones where navigation needs to be clear.

Required fields – the system does not clearly indicate required or invalid form fields. This can slow down and frustrate data entry.

Efficient task completion – after navigation and required field marking changes (both of which will improve efficiency) improvements to task efficiency should be considered. But effectiveness must be maintained.

Appendices

Appendix A - Participant Scripts

CPOE - Diagnostic Imaging

Task Computerized Provider Order Entry (CPOE) – Diagnostic Imaging - 45 CFR 170.315(a)(3)

Description (i) Enable a user to record, change, and access diagnostic imaging orders.

(ii) Optional. Include a “reason for order” field.

Start time _____

#	Step	Expected	Actual	Pass/Fail
1	**Login as xxxxxx.**	Clean login		
2	**Select ‘Red’ from the Unit drop down list and click Submit.**	Your username and unit should appear in the window tab. HIPAA warning should appear.		
3	**Read and click ‘OK’ to HIPAA warning.**	HIPAA warning should disappear.		
4	**Select patient Nathan Lennon #377108 as the active patient.**	Photo and name should appear on the header; Inmate actions should be available		
5	**Select Orders under patient actions.**	Orders card should appear for that patient		
6	**Select New Order.**	New Order card should appear		
7	**Select Gonzo, George as the provider from the drop down list.**			
8	**Select ‘verbally’ from the how received drop down list.**			
9	**Select todays date as start date**			
10	**Enter 1 in the Duration In Days field**			
11	**Select “once do once” from the Frequency drop down**			

12	**Select "Image" from the Type drop down**			
13	**Select "CT abdomen & pelvis w/o contrast" from the Description drop down**			
14	**Enter** **"To rule out kidney stones"** **in the Notes field.**			
15	**Click the Submit button.**	New Order card should go away; the new order should appear in green under the Orders section of the nursing hub with a pending status (needs transcription). Pending transcription pop up window should appear.		
16	**Click on the 'View Inbox' button in the pending transcription pop up window.**	The View Inbox card should appear with all pending orders.		
17	**Click on the pending CT imaging order.**	The order will expand and display the Transcribe button.		
18	**Click on the Transcribe button.**	The Transcribe Orders card should appear.		
19	**Find the CT Imaging order, click on the Accept field. Mark any other prescription as 'Leave unchanged'. Submit the screen.**	The Transcribe Orders card should disappear; the CT order should appear on the patients Orders card as active.		
20	**Click Log Out button in Navigation bar.**	Button will change to say 'Sure?'		
21	**Click 'Sure?' button.**	Clean log out. Return to Log In screen.		

Orders cannot be changed after entry even before transcription.

To "change" an order requires that it be discontinued and re-entered.

Discontinue steps:

#	**Step**	Expected	Actual	Pass/Fail

1	**Login as xxxxxx.**	Clean login		
2	**Select 'Red' from the Unit drop down list and click Submit.**	Your username and unit should appear in the window tab. HIPAA warning should appear.		
3	**Read and click 'OK' to HIPAA warning.**	HIPAA warning should disappear.		
4	**Select patient Nathan Lennon #377108 as the active patient.**	Photo and name should appear on the header; Inmate actions should be available		
5	**Select Orders under patient actions.**	Orders card should appear for that patient		
6	**Click on the D/C order button.**	The D/C Order list card should appear.		
7	**Click on the active CT Imaging order.**	The order should appear below the list with start/end dates, passes and any prior status changes.		
8	**Select Gonzo, George as the provider from the drop down list.**			
9	**Select 'verbally' from the how received drop down list.**			
10	**Enter 'Entered in error' in the Note field.**			
11	**Click on the D/C button.**	The D/C Order card should disappear; the order should be removed from the patient active order list.		
12	**Click Log Out button in Navigation bar.**	Button will change to say 'Sure?'		
13	**Click 'Sure?' button.**	Clean log out. Return to Log In screen.		

End time _____

Overall Assessment (1 as very difficult to 5 as very easy) 1 2 3 4 5

CPOE – Laboratory

Task Computerized Provider Order Entry (CPOE) – Laboratory - 45 CFR 170.315(a)(2)

Description (i) Enable a user to record, change, and access laboratory orders.

(ii) Optional. Include a "reason for order" field.

Start time _____

#	Step	Expected	Actual	Pass/Fail
1	**Login as xxxxxxxx**	Clean login		
2	**Select 'Red' from the Unit drop down list and click Submit.**	Your username and unit should appear in the window tab. HIPAA warning should appear.		
3	**Read and click 'OK' to HIPAA warning.**	HIPAA warning should disappear.		
4	**Select patient Manuel Gadsden #373886 as the active patient.**	Photo and name should appear on the header; Inmate actions should be available		
5	**Select Orders under patient actions.**	Orders card should appear for that patient		
6	**Select New Order.**	New Order card should appear		
7	**Select Gonzo, George as the provider from the drop down list.**			
8	**Select 'via telephone' from the how received drop down list.**			
9	**Select todays date as start date**			
10	**Enter 1 in the Duration In Days field**			
11	**Select 'once do once' from the Frequency drop down**			
12	**Select 'Lab Order' from the Type drop down**			
13	**Select 'CBC W Differential Panel' from the Description drop down**			
14	**Click the Submit button.**	New Order card should go away; the new order should appear in green		

		under the Orders section of the nursing hub with a pending status (needs transcription). Pending transcription pop up window should appear.		
15	**Click on the 'View Inbox' button in the pending transcription pop up window.**	The Transcribe Inbox card should appear with all pending orders.		
16	**Click on the pending CBC order.**	Order will expand and display the Transcription button.		
17	**Click the Transcription button.**	The Transcribe Orders card should appear.		
18	**Find CBC lab order, click on the Accept field. Mark any other prescription as 'Leave unchanged'. Submit the screen.**	The Transcribe Orders card should disappear; the CBC lab order should appear on the patients Orders card as active.		
19	**Click Log Out button in Navigation bar.**	Button will change to say 'Sure?'		
20	**Click 'Sure?' button.**	Clean log out. Return to Log In screen.		

Orders cannot be changed after entry even before transcription.

To "change" an order requires that it be discontinued and re-entered.

Discontinue steps:

#	**Step**	Expected	Actual	Pass/Fail
1	**Login as xxxxxxxx.**	Clean login		
2	**Select 'Red' from the Unit drop down list and click Submit.**	Your username and unit should appear in the window tab. HIPAA warning should appear.		
3	**Read and click 'OK' to HIPAA warning.**	HIPAA warning should disappear.		
4	**Select patient Manuel Gadsden #373886 as the active patient.**	Photo and name should appear on the		

		header; Inmate actions should be available		
5	**Select Orders under patient actions.**	Orders card should appear for that patient		
6	**Click on the D/C order button.**	The D/C Order list card should appear.		
7	**Click on the active CBC lab order.**	The lab order should appear below the list with start/end dates, passes and any prior status changes.		
8	**Select Gonzo, George as the provider from the drop down list.**			
9	**Select 'via telephone' from the how received drop down list.**			
10	**Enter 'Done in error.' In the Note field.**			
11	**Click on the D/C button.**	The D/C Order card should disappear; the order should be removed from the patient active order list.		
12	**Click Log Out button in Navigation bar.**	Button will change to say 'Sure?'		
13	**Click 'Sure?' button.**	Clean log out. Return to Log In screen.		

End time _____

Overall Assessment (1 as very difficult to 5 as very easy) 1 2 3 4 5

CPOE - Medications and Medication List

Task Computerized Provider Order Entry (CPOE) – Medications - 45 CFR 170.315(a)(1)

Description (i) Enable a user to record, change, and access medication orders.

(ii) Optional. Include a “reason for order” field.

Task Medication List – 45 CFR 170.315(a)(7)

Description (i) Enable a user to record, change, and access a patient’s active medication list as well as medication history.

Start time _____

#	**Step**	Expected	Actual	Pass/Fail
1	**Login as xxxxxxxx.**	Clean login		
2	**Select ‘Red’ from the Unit drop down list and click Submit.**	Your username and unit should appear in the window tab. HIPAA warning should appear.		
3	**Read and click ‘OK’ to HIPAA warning.**	HIPAA warning should disappear.		
4	**Select patient Manuel Gadsden #373886 as the active patient.**	Photo and name should appear on the header; Inmate actions should be available		
5	**Select Orders under patient actions.**	Orders card should appear for that patient. This card should also show complete active medication list as well as complete medication history list.		
6	**Select New Rx.**	New Prescription card should appear		
7	**Select Gonzo, George as the provider from the drop down list.**			
8	**Select ‘via telephone’ from the how received drop down list.**			
95	**Select todays date as start date**			
10	**Enter**	RX field should be		

	xanax 0.5 mg po bid x 10 days **in the RX field and hit Enter.**	Xanax (Alprazolam) 0.5 mg PO bid x 10 days The Medicine/Item, Strength, Frequency, Route and Duration fields should populate with the correct values.		
11	**Enter 'Needed for stability' in the Notes field**			
12	**Save the RX.**	New Prescription card should go away; the new RX should appear in green under the Orders section of the nursing hub with a pending status (needs transcription). Pending transcription pop up window should appear.		
13	**Click on the 'View Inbox' button in the pending transcription pop up window.**	The Transcribe Inbox card should appear with all pending orders.		
14	**Click the pending Xanax order.**	Order will expand and display the Transcription button.		
15	**Click the Transcription button.**	The Transcribe Orders card should appear.		
16	**Find the Xanax RX and click on the Accept field. Mark any other prescription as 'Leave unchanged'. Submit the screen.**	The Transcribe Orders card should disappear; the Xanax prescription should appear on the patients Orders card as active.		
17	**Click Log Out button in Navigation bar.**	Button will change to say 'Sure?'		
18	**Click 'Sure?' button.**	Clean log out. Return to Log In screen.		

Medication orders cannot be changed after entry even before transcription.

To "change" an order requires that it be discontinued and re-entered.

Discontinue steps:

#	**Step**	Expected	Actual	Pass/Fail

1	**Login as xxxxxxxx.**	Clean login		
2	**Select 'Red' from the Unit drop down list and click Submit.**	Your username and unit should appear in the window tab. HIPAA warning should appear.		
3	**Read and click 'OK' to HIPAA warning.**	HIPAA warning should disappear.		
4	**Select patient Manuel Gadsden #373886 as the active patient.**	Photo and name should appear on the header; Inmate actions should be available		
5	**Select Orders under patient actions.**	Orders card should appear for that patient		
6	**Click on the D/C order button.**	The D/C Order list card should appear.		
7	**Click on the active Xanax order.**	The Prescription should appear below the list with start/end dates, passes and any prior status changes.		
8	**Select Gonzo, George as the provider from the drop down list.**			
9	**Select 'via telephone' from the how received drop down list.**			
10	**Enter 'Done in error.' In the Note field.**			
11	**Click on the D/C button.**	The D/C Order card should disappear; the order should be removed from the patient active order list.		
12	**Click Log Out button in Navigation bar.**	Button will change to say 'Sure?'		
13	**Click 'Sure?' button.**	Clean log out. Return to Log In screen.		

End time _____

Overall Assessment (1 as very difficult to 5 as very easy) 1 2 3 4 5

Demographics

Task Demographics - 45 CFR 170.315(a)(5)

Description (i) Enable a user to record, change, and access patient demographic data including race, ethnicity, preferred language, sex, sexual orientation, gender identity, and date of birth.

Start time _____

#	Step	Expected	Actual	Pass/Fail
1	**Login as xxxxxxxxx.**	Clean login		
2	**Select 'Red' from the Unit drop down list and click Submit.**	Your username and unit should appear in the window tab. HIPAA warning should appear.		
3	**Read and click 'OK' to HIPAA warning.**	HIPAA warning should disappear.		
4	**Select patient Manuel Gadsden #373886 as the active patient.**	Photo and name should appear on the header; Inmate actions should be available		
5	**Using the keyboard, use the tilde and type 'Demographics' and hit Enter**	Demographics card should appear for that patient.		
6	**Enter 12/22/1981 In the Date of Birth field.**			
7	**Select 'Unknown' from the drop down list labeled Sex.**			
8	**Select 'Decline to Answer' from the drop down list labeled Sexual Orientation.**			
9	**Select 'Choose Not to Disclose' from the drop down list labeled Gender Identity.**			
10	**Select 'Declined to Answer' from the drop down list labeled Preferred Language.**			
11	**Select 'Declined to Answer' from the checkboxes for Race.**			
12	**Select 'Declined to Answer' from the checkboxes for Ethnicity.**			

13	**Click the Save button.**	Demographics card should disappear. A notification should appear in green at the top of the screen stating, “Demographics saved successfully”.		
14	**Using the keyboard, use the tilde and type ‘Demographics’ and hit Enter**	Demographics card should appear for that patient.		
15	**Select ‘Male’ from the drop down list labeled Sex.**			
16	**Select ‘Straight or Heterosexual’ from the drop down list labeled Sexual Orientation.**			
17	**Select ‘Male’ from the drop down list labeled Gender Identity.**			
18	**Select ‘English’ from the drop down list labeled Preferred Language.**			
19	**Uncheck ‘Declined to Answer’ from the checkboxes for Race.**			
20	**Select ‘English’ from the checkboxes for Race.**			
21	**Uncheck ‘Declined to Answer’ from the checkboxes for Ethnicity.**			
22	**Select ‘English’ and ‘Chinese’ from the checkboxes for Ethnicity.**			
23	**Click the Save button.**	Demographics card should disappear. A notification should appear in green at the top of the screen stating, “Demographics saved successfully”.		
24	**Click Log Out button in Navigation bar.**	Button will change to say ‘Sure?’		
25	**Click ‘Sure?’ button.**	Clean log out. Return to Log In screen.		

End time _____

Overall Assessment (1 as very difficult to 5 as very easy) 1 2 3 4 5

Medication Allergy List

Task Medication Allergy List - 45 CFR 170.315(a)(8)

Description (i) Enable a user to record, change, and access a patient's active mediction allergy list as well as medication allergy history.

Start time _____

#	Step	Expected	Actual	Pass/Fail
1	**Login as xxxxxxxxx.**	Clean login		
2	**Select 'Red' from the Unit drop down list and click Submit.**	Your username and unit should appear in the window tab. HIPAA warning should appear.		
3	**Read and click 'OK' to HIPAA warning.**	HIPAA warning should disappear.		
4	**Select patient Manuel Gadsden #373886 as the active patient.**	Photo and name should appear on the header; Inmate actions should be available		
5	**Using the keyboard, use the tilde and type 'Add Allergy' and hit Enter.**	Add Allergy card should appear		
6	**Enter 'Amoxicillin' In the Substance field.**			
7	**Select 'Severe' from the drop down list labeled Reaction Severity.**			
8	**Enter 'difficulty breathing' In the Response field.**			
9	**Click the Submit button.**	Add Allergy card should disappear. A notification should appear in green at the top of the screen stating, "Allergy updated successfully". The amoxicillin allergy should be added as active on the Allergy card.		
10	**Using the keyboard, use the tilde and type 'Allergies' and hit**	Allergies card should appear for that patient		

	Enter.			
11	**Select 'Penicillin V' from the Allergies card.**	The Edit Allergy card for Penicillin V should appear.		
12	**Change the Reaction Severity to Mild.**			
13	**Change the response to 'hives'.**			
14	**Click the Submit button.**	Edit Allergy card should disappear. A notification should appear in green at the top of the screen stating "Allergy updated successfully".		
15	**Click Log Out button in Navigation bar.**	Button will change to say 'Sure?'		
16	**Click 'Sure?' button.**	Clean log out. Return to Log In screen.		

End time _____

Overall Assessment (1 as very difficult to 5 as very easy) 1 2 3 4 5

Problem List

Task Problem List - 45 CFR 170.315(a)(6)

Description (i) Enable a user to record, change, and access a patient's active problem list.

Start time _____

#	Step	Expected	Actual	Pass/Fail
1	**Login as xxxxxxxxx.**	Clean login		
2	**Select 'Red' from the Unit drop down list and click Submit.**	Your username and unit should appear in the window tab. HIPAA warning should appear.		
3	**Read and click 'OK' to HIPAA warning.**	HIPAA warning should disappear.		
4	**Select patient Manuel Gadsden #373886 as the active patient.**	Photo and name should appear on the header; Inmate actions should be available		
5	**Using the keyboard, use the tilde and type 'Add Problem' and hit Enter**	Add Problem card should appear for that patient		
6	**Select 'Medical-general medical' from the drop down list Type.**			
7	**Enter** **Sprain of Ankle** **In the Active Problem field.**			
8	**Enter** **Increase stability** **In the Treatment Goals field**			
9	**Click the Submit button.**	Add Problem card should disappear. A notification should appear in green at the top of the screen stating 'Inmate Problem saved successfully'.		
10	**Using the keyboard, use the tilde and type 'Problem List' and hit Enter**	Problem List card should appear for that patient. Sprain of Ankle		

		should be listed as an active Problem on the card.		
11	**Click Resolve Problem button next to active Sprain of Ankle problem**	Progress Note card should appear.		
12	**Enter Sprain of ankle problem resolved on _ _/_ _/_ _ _ _ (todays date) In the Note field**			
13	**Select 'Out Of Cell' checkbox under Location**			
14	**Select 'Medical' from the Discipline drop down**			
15	**Select 'No' to 'Does this resolve an appointment?' question**			
16	**'Yes' should already be selected to question 'Does this resolve a problem list item?'**			
17	**Click the Submit button.**	Progress Note card should disappear. A notification should appear in green at the top of the screen stating 'Progress Note saved successfully'. The Sprain of Ankle active problem should move to the Inactive area of the Problem List card.		
18	**Click Log Out button in Navigation bar.**	Button will change to say 'Sure?'		
19	**Click 'Sure?' button.**	Clean log out. Return to Log In screen.		

End time _____

Overall Assessment (1 as very difficult to 5 as very easy) 1 2 3 4 5

Appendix B – Participant Instructions

Attached below are 6 test scripts that you will need to open and follow the step by step instructions within. Next to each step there are expected results, if applicable. Meaning, when you perform that step, this is what should occur.
If the expected results do not occur for you, please enter what did happen in the next column labeled 'Actual'.
Each step must also receive a pass or fail. If the expected results occur or you do not encounter any issue with a step, it should receive a pass. If any issues occur, please give the step a fail.
The first page of every script will have a spot for a date. Please be sure to enter the date you tested the script.

Also attached is an Evaluator Information Sheet. This is just some basic information about you, the tester.

Some info you will need in order to complete the test scripts is listed below:

This is a web based EHR and you will need to use XXXXXXX. If you do not have XXXXXXX on your desktop please reach out to me and I can assist with getting it installed.

The URL for the EHR is: https://XXXXXX

Your username is:
Your password is:

Instructions on how to search an inmate is not listed within the test script but is shown in the attached picture.