Usability Test Report of ClinNext 10 EHR version 1.0

Report based on ISO/IEC 25062: 2006 Common Industry Format for Usability Test Reports

ClinNext 10 version 1.0

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Report Prepared by: Quality Assurance Department

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1 EXECUTIVE SUMMARY

A usability study of **ClinNext 10 version 1.0 EHR** was conducted on August 21st, 2018 at Sabiamed Corporation facilities, by Sabiamed's Quality Assurance department. The purpose of this exercise was to test and validate the usability of the current user interface, provide evidence of usability ratings in the EHR Under Test (EHRUT), and identify areas for future product functional improvements. During the usability test, 10 participants matching the targeted demographic criteria served as participants and used the EHRUT in simulated, but representative tasks.

This study collected performance data on 17 tasks typically conducted on an EHR:

Task	Criteria	Task
a1.1	(a)(1) – CPOE Medication	Access Medication Orders
a1.2	(a)(1) – CPOE Medication	Edit Medication Order
a2.1	(a)(2) – CPOE Laboratory	Place Laboratory Order
a2.2	(a)(2) – CPOE Laboratory	Edit Laboratory Order
a3.1	(a)(3) – CPOE Radiology	Place Radiology Order
a3.2	(a)(3) – CPOE Radiology	Edit Radiology Order
a4.1	(a)(4)- Drug-drug, Drug-allergy Interaction Checks	Insert a Medication with Drug-Drug Interaction
a4.2	(a)(4)- Drug-drug, Drug-allergy Interaction Checks	Insert a Medication with Drug-Allergy Interaction
a5.1	(a)(5) - Demographics	Modify Demographic Profile regarding Stage 3 criteria for Sexual Orientation
a5.2	(a)(5) – Demographics	Modify Demographic Profile regarding Gender Identity for the Patient
a6.1	(a)(6) - Problem List	Change a Diagnosis Status
a7.1	(a)(7) - Medication List	Document a new Active Medication
a7.2	(a)(7) - Medication List	Modify an existing Active Medication
a8.1	(a)(8) - Medication Allergy List	Document a new Medication Allergy
a8.2	(a)(8) - Medication Allergy List	Modify an existing Medication Allergy
a9.1	(a)(9) - Clinical Decision Support	Access System Generated CDS rule
b3.1	(b)(3) - Electronic Prescribing	Access Prescribed Medications listing

During the 2 hours of the usability test, each participant was greeted by the administrator and asked to review and sign an informed consent form (included in Appendix 3 herein). Furthermore, they were instructed that they could withdraw from the study at any time. All participants had prior or no experience with the EHR. The administrator introduced the test, explained the test procedures, and instructed participants to complete a series of tasks (listed as patient case scenarios) using the EHRUT. During the testing, the administrator documented the time it took each

participant to perform each task and, along with the data logger(s) recorded user performance data on paper. The administrator did not provide the participant any assistance in how to complete the tasks.

Each participant screen/monitor activity was recorded for subsequent analysis. The following types of data were collected for each participant:

- Completion of the correct case
- Time to complete the test case
- Number and types of errors committed during test case execution
- Path deviations from ideal execution path
- Participant's verbalizations and/or feedback
- Participant's overall satisfaction rating of the tested functionalities

Following the conclusion of the testing, participants were asked to complete a post-test questionnaire. 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. Following is a summary of the performance and rating data collected on the EHRUT.

All results can be reviewed in the SED report accompanying this document (**ClinNext 10 - 2015 Edition Safety-Enhanced Design Checklist_Rev02Oct2017**)

Based on performance data obtained from the study, the System Usability Scale scored the subjective satisfaction with the system to be: Between easy and a normal level of complexity.

In addition to the insight gained by analyzing the performance data, various qualitative observations were made by participants, which are described in detail in these sections:

- Major findings
- Areas for improvement

2 INTRODUCTION

The EHRUT tested for this study was **ClinNext 10 v.1.0**. This EHR contains the necessary functionality for healthcare providers to handle typical patient workflows, in the Ambulatory and In-Patient settings. The usability testing attempted to represent realistic scenarios that would typically be encountered when using the product.

The purpose of this study was to test and validate the level of usability of the current user interface and provide evidence of usability in the EHR Under Test (EHRUT). Furthermore, to measure user effectiveness, efficiency, and user satisfaction experienced when using the product, by collecting and analyzing user ratings, success rates, and task execution times.

3 METHOD

3.1 PARTICIPANTS

A total of 10 participants were selected, all of them meeting the participant qualification criteria. Participants in the test were mostly Nurses and Physicians. Participants were recruited by the Quality Assurance Department. Participants were given the opportunity to have the same orientation and level of training as the actual end users would have received when introduced to the product.

In order to select the participants, end-user characteristics were identified and tabulated into a recruitment screening form, used to solicit potential participants. The screening form is included in Appendix *1*.

All recruited participants had a mix of backgrounds and demographic characteristics conforming to the targeted recruitment criteria. The following table lists all participants, including demographic information, professional experience, and previous experience with computer systems. Participant names were replaced with Participant IDs so that an individual's data cannot be traced back to individual identities.

Part ID	Gender	Age Group	Education	Occupation/role	Professional Experience (years)	Computer Experience (years)
1	Female	50-59	Bachelor's Degree	Technical Support	*5*	*5*
2	Male	20-29	Bachelor's Degree	Programmer	*1*	*1*
3	Male	30-39	Bachelor's Degree	RN	*5*	*1*
4	Male	30-39	Bachelor's Degree	Manager	*5*	*5*
5	Female	60-69	Bachelor's Degree	Coordinator	*10*	*10*
6	Male	50-59	Bachelor's Degree	Supervisor ER	*10*	*5*
7	Female	30-39	Bachelor's Degree	Critical Care Supervisor	*5*	*2*
8	Male	30-39	Bachelor's Degree	RN	*5*	*2*
9	Female	40-49	Bachelor's Degree	RN	*5*	*1*
10	Male	30-39	Bachelor's Degree	RN	*3*	*3*

Participants were scheduled for two-hour sessions with a quick debriefing by the administrator(s) and data logger(s). A spreadsheet was used to keep track of the participant schedule, and included each participant's demographic characteristics as documented in the screening form.

3.2 STUDY DESIGN

The main objective of this test was to uncover areas where the product allowed the user to perform well – that is, effectively, efficiently, and with a good level of user satisfaction; and areas where the product that failed to meet the needs or expectations of participants. The data from this test may serve as a baseline for future tests with an updated version of the same EHR and/or comparison with other EHRs provided that the same tasks are used. In short, this testing serves as both a means to record or benchmark current system usability, but also to identify areas where functional improvements need to be made.

During the usability test, participants interacted with ClinNext 10 EHR. Each participant used the system in the same location and was provided with the same set of instructions. The system was evaluated for effectiveness, efficiency and user satisfaction as defined by performance data collected and analyzed for each participant:

- Number of tasks successfully completed within the allotted time without assistance
- Time to complete the tasks
- Number and types of errors committed
- Path deviations from ideal path
- Participant's comments and/or feedback
- Participant's overall satisfaction ratings of the system

Additional information about the various measures can be found in Section 3.9-Usability Metrics.

3.3 TASKS

A total of 24 tasks were conducted that are representative of the kinds of activities that a user might perform with this HER. These activities are listed in the table below.

Tasks were selected based on their frequency of use, criticality of function, and those that may be most troublesome for end-users.

Task	Criteria	Task	Risk Rating
a1.1	(a)(1) – CPOE Medication	Access Medication Orders	5
a1.2	(a)(1) – CPOE Medication	Edit Medication Order	3
a2.1	(a)(2) – CPOE Laboratory	Place Laboratory Order	4
a2.2	(a)(2) – CPOE Laboratory	Edit Laboratory Order	3
a3.1	(a)(3) – CPOE Radiology	Place Radiology Order	4
a3.2	(a)(3) – CPOE Radiology	Edit Radiology Order	4
a4.1	(a)(4)- Drug-drug, Drug-allergy Interaction Checks	Insert a Medication with Drug-Drug Interaction	5
a4.2	(a)(4)- Drug-drug, Drug-allergy Interaction Checks	Insert a Medication with Drug-Allergy Interaction	5
a5.1	(a)(5) - Demographics	Modify Demographic Profile regarding Stage 3 criteria for Sexual Orientation	1
A5.2	(a)(5) – Demographics	Modify Demographic Profile regarding Gender Identity for the Patient	1
a6.1	(a)(6) - Problem List	Change a Diagnosis Status	3
a7.1	(a)(7) - Medication List	Document a new Active Medication	4
a7.2	(a)(7) - Medication List	Modify an existing Active Medication	3
a8.1	(a)(8) - Medication Allergy List	Document a new Medication Allergy	5
a8.2	(a)(8) - Medication Allergy List	Modify an existing Medication Allergy	5
a9.1	(a)(9) - Clinical Decision Support	Access System Generated CDS rule	5
b3.1	(b)(3) - Electronic Prescribing	Access Prescribed Medications listing	4

Tasks were assigned a risk rating score reflecting the inherent risk of user errors or documentation delays due to the selection of non-ideal execution paths in patient optimal treatment. Risk rating

scores range between 1 (no risk) to a maximum of 5 (high risk). For example, errors in the documentation of sexual orientation (task a5.1) are considered low risk errors, whereas documentation errors related to patient medication allergies (task a8.1) are inherently high-risk errors due to the potential of administering a medication to which the patient is allergic to. Accordingly, risk ratings of 1 and 5 were assigned to those tasks, respectively.

3.4 PROCEDURE

Upon arrival, participants were greeted; their identity was verified and matched with a name on the participant schedule. Participants were then assigned a participant ID. Each participant reviewed and signed an informed consent and release form (See Appendix 2). A representative from the Quality Assurance team witnessed the participant's signature.

To ensure that the test ran smoothly, two staff members participated in this test, the usability administrator and the data logger. The usability testing staff conducting the test were an experienced QA Analyst and an Application Support Specialist.

The administrator moderated the session, including administering instructions and tasks. The administrator also monitored task times, obtained post-task rating data, and took notes on participant's comments. A second person served as the data logger and took notes on task success, ideal path deviations, number and type of errors, and user comments.

All participants were instructed to perform the tasks:

- As quickly as possible
- Making as few errors as possible
- Without assistance; administrators could give immaterial guidance and clarification on tasks, but not instructions on how to perform the task.
- Without using a think aloud technique.

For each task, participants were given a written copy of the task. Task timing began once the administrator finished reading the question. The task time was stopped once the participant indicated they had successfully completed the task. Scoring is discussed in Section 3.9 below.

Following the session, the administrator gave the participant the post-test questionnaire (e.g., the System Usability Scale, see Appendix 5), compensated them for their time, and thanked everyone for their participation.

Participants' demographic information, task success rate, task execution times, errors, deviations from ideal path, verbal responses, and post-test questionnaire were recorded into a spreadsheet.

3.5 TEST LOCATION

The testing facility included a table and a computer for each participant. Only the participants, the administrator and the data loggers were in the test room during the test. To ensure that the environment was comfortable for users, noise levels were kept to a minimum with room temperature

within a comfortable range. All safety and evacuation procedures were valid, in place, and visible to all participants.

3.6 TEST ENVIROMENT

The EHRUT would be typically be used in a healthcare office or facility. In this instance, the testing was conducted at the company's training center. For testing, all laptop computers were equipped with Windows 7 or higher Operating System. The participants used a keyboard and mouse when interacting with the EHRUT.

The application was set up by the Quality Assurance Department according to the Sabiamed's documentation describing the system set-up and configuration. The application web-services were hosted on IIS on a Windows Server 2012 server using a test database. Technically, the system performance (i.e., response time) was representative to what actual users would experience in a field implementation. Additionally, participants were instructed not to change any of the default system settings (such as control of font size or screen resolution).

3.7 TEST FORMS AND TOOLS

During the usability test, various documents and instruments were used, including:

1. Informed Consent form
2. Moderator's Guide
3. Post-test Questionnaire
4. Examples of these documents can be found in Appendices 3-6, respectively. The Moderator's Guide was devised to be able to capture the required data.
5. The participant's interaction with the EHRUT was captured and recorded digitally with screen capture software running on each test machine. User comments were documented by the data logger.
6. All the captured information was tabulated by the data logger after the session.

3.8 PARTICIPANT INSTRUCTIONS

The administrator read the following instructions aloud to all participants prior to initiating the session:

- No cellphone would be allowed to be turned on during the testing
- Bathroom breaks were asked to be taken prior to beginning the test, or after completing the same
- No questions related to how to use the application or where to find the information could be answered
- The data logger could only answer questions regarding the question's meaning and/or test case clarification, but no further explanation.

Following the procedural instructions, participants were shown the EHR and their list of tasks to be completed. Further information of how the test was going to take place was provided. For each task, the administrator would read the task and announce the beginning of time, the participant then began performing the task, and after ending it, he/she raised their hand to announce their completion. Once everyone had raised their hand, the administrator stopped the time.

Participants were then given 8 patient cases to complete. All test cases are listed in Appendix 5.

3.9 USABILITY METRICS

According to the *NIST Guide to the Processes Approach for Improving the Usability of Electronic Health Records*, EHRs should support a process that provides a high level of usability for end users. The goal is for users to interact with the system effectively, efficiently, and with an acceptable level of satisfaction.

To this end, metrics for effectiveness, efficiency and user satisfaction were captured during the usability testing. The goals of the test were to assess:

1. Effectiveness of ClinNext 10 by measuring participant success rates and errors
2. Efficiency of ClinNext 10 by measuring the average task time and path deviations from ideal path
3. Overall satisfaction with ClinNext 10 by measuring provided ease of use ratings

DATA SCORING

The following table details how tasks were scored, how errors were evaluated, and how was the time data analyzed.

Measures	Rationale and Scoring
Effectiveness: Task Success	A task was counted as a "Successful" task if the participant was able to complete the task and achieve the correct outcome, without assistance, within the allotted time.
Effectiveness: Task Failures	If the participant abandoned the task, did not reach the correct answer, performed it incorrectly, or reached the end of the allotted time before successful completion, the task was counted as a "Failed" task.
Efficiency: Task Deviations	The participant's path (i.e., steps) through the application was recorded. Deviations occur if the participant, for example, went to a wrong screen, clicked on an incorrect menu item, followed an incorrect link, or interacted incorrectly with an on-screen control. This path was compared to the optimal path. The number of steps in the observed path is divided by the number of steps in the optimal path to provide a ratio of path deviation.

	It is strongly recommended that task deviations be reported. Optimal paths (i.e., procedural steps) should be recorded when constructing tasks
Efficiency: Task Time	Each task was timed from the time when the administrator said "Begin" until the participant raised their hand. If he or she failed to raise his/her hand, the time was stopped when the participant stopped performing the task. All task times, including the tasks that were not completed (participant gave up) were documented.
Satisfaction: Task Rating	Participant's subjective impression of the ease of use of the application was measured by administering both a simple post-task question as well as a post-session questionnaire. After each task, the participant was asked to rate "Overall, this task was:" on a scale from 1 (Very Difficult) to 5 (Very Easy). This data was then averaged across participants.
	Common convention is that average ratings for systems described as "easy to use" should be *3.3* or above.
	To measure participants' confidence in and likeability of the ClinNext 10 system, the testing team administered the System Usability Scale (SUS) post-test questionnaire. Questions included, "I think I would like to use this system frequently," "I thought the system was easy to use," and "I would imagine that most people would learn to use this system very quickly." See full System Usability Score questionnaire in Appendix 3.

Table 1 Details of how observed data were scored.

4 RESULTS

4.1 DATA ANALYSIS AND REPORTING

The results of the test were calculated according to the methods specified in the Safety Enhanced Designed Document provided by Drummond Group, all the results can be found in the Excel attached to this document submission.

The results from the SUS (System Usability Scale) scored the subjective satisfaction with the system is detailed below. Broadly interpreted, scores under 3 represent systems with poor usability; scores over 4 would be considered above average.

Participant	1	2	3	4	5	6	7	8	9	10	Av
I think I would like to use this system frequently	2	3	5	3	3	5	3	5	5	5	3.9
I found the system unnecessarily complex	2	3	3	3	3	4	3	1	1	5	2.8
I thought the system was easy to use	2	3	3	2	3	4	4	5	5	5	3.6
I think I would need further training and technical support	2	5	2	4	4	5	3	2	2	5	3.4
I found the various functions in this system well integrated	2	4	3	2	4	5	4	4	5	5	3.8
I felt very confident using the system	2	1	3	3	4	4	4	5	5	5	3.6
I found that the system was very intuitive to use	2	4	4	3	4	4	4	4	4	4	3.7
I would like to use this system for my daily work	2	5	5	4	5	4	4	3	5	5	4.5

We can conclude that we have room for improvement in terms of product usability. In the next section, we have a table of the recommendations shown in this study to the development and design team for future consideration.

4.2 DISCUSSION OF THE FINDINGS

After analyzing all the data gathered, it became apparent that certain functional areas of the EHRUT must be considered for future improvements. In this section, every aspect is analyzed.

SATISFACTION

Based on the results, the overall opinion of most participants was that the system is easy to use and that little to no training is necessary. The system was found to be intuitive and overall users felt that they could use this system for their daily work.

MAJOR FINDINGS

One of the major findings was that many users expressed a need for redundancy of the system options, or to be able to access the same options through different screens. Currently, functionalities are available through one optimal path and no deviation is allowed but we need to consider enhancing the product by adding other possible paths.

AREAS FOR IMPROVEMENT

The table below contains several areas of improvement that were identified by analyzing suggestions made through verbal comments or through the written comments on the System Usability Scale Questionnaire:

	Comment
Add allergy list items at the moment of entering CPOE Medications	Many users expressed this was the moment they wished to enter the allergies or review the allergy list, even though they were aware this was not considered the optimal path to document it.
Not setting a default allergy severity	We must reconsider having a default severity set in the screen, since many users failed to modify the severity of the documented allergy in the test case, leaving the default severity
In the CPOE Lab Order, several users failed to change the priority and expressed in the comments the icon was not intuitive	They expressed they would've preferred just the words expressing the priorities, as opposed to icons
In the Problem List they wanted to have the ability to add through the same screen new Problems or diagnosis not only to resolve or inactivate existing ones	This should be considered in the roles

5 APPENDICES

The following appendices include supplemental data for this usability test report.

5.1 APPENDIX 1: RECRUTING SCREENER

Participant Screening Form

Sabiamed is in need of your help!

Sabiamed is currently assessing the usability of the ClinNext 10 v.1.0 E H R product and identifying areas for improvement. For this reason, a session has been scheduled where users will be able to use various selected functionalities of the ClinNext 10 system and provide their feedback. You can be part of this effort by filling out this short candidate screening form. Based on the provided answers, Sabiamed will select a group of participants. The selected participants will be notified as soon as all the participants have been identified. The event will occur on August 21, 2018 at 1:30 PM. We thank you in advance for your valuable feedback and your assistance in helping us improve our products!

Question	Yes	No	
General Questions			
Have you participated in a focus group or usability test in the past 3 months?			
Have you worked or does anyone in your household work at Sabiamed?			
Have you worked or does anyone in your household work in an Electronic Medical Record software company?			
Professional Demographics			
Are you a Nurse or RN?			**Specialty:**
Are you a Physician?			**Specialty:**
Have you worked in this position for 0-1 year?			
Have you worked in this position for 2-5 yrs.?			
Have you worked in this position for more than 5 years?			
Do you currently work at the ER?			
Computer Experience			
Do you currently use an Electronic Medical Record to perform your duties?			
Are you in the 18-25 age group?			
Are you in the 26-45 age group?			

Are you in the 46-65 age group?			
Are you over 65 years of age?			

Contact Information

1. Name:
2. Gender:
3. Address:
4. City, State, Zip
5. Daytime phone number
6. Evening Phone Number
7. Alternate Phone Number
8. Immediate Supervisor
9. Email address

5.2 APPENDIX 2: INFORMED CONSENT FORM

Participant Consent Form

Participant Consent Form

The purpose of this usability study is to evaluate the design of the ClinNext 10 version 1.0 product. We are interested in determining if people can accomplish various tasks and easily find information using the product. The session will not 'test' you or your ability or skills, rather the session was designed to test the application functionality and provide information on areas that can be improved. Please be advised that there are no risks associated with your participation in this session.

During the session, you will be asked to complete various tasks using ClinNext 10 and to fill out a user satisfaction questionnaire. As you complete the tasks, members of Sabiamed's staff will observe the process and take notes. In addition, the session will be captured on video for future review. The session will last no longer than 2 hours.

If for any reason you are uncomfortable during the session and do not want to complete a task, you may say so and we will move on to the next task. In addition, if you do not want to continue with the study, you may leave the session at any time.

Approximately 10-15 people will participate in this study. Results from all sessions will be included in a usability report to be presented to the Development and Quality Assurance teams. Your name will not be included in the report nor will your name be associated with any session data collected.

If you wish to speak with someone about your participation in this study, or if you feel you were not treated as described above, you may contact Mr. Efren Santiago at 787-653-7000.

I, _____, have read and fully understood the extent of the study and any risks involved. All my questions, if any, have been answered to my satisfaction. My signature below acknowledges my understanding of the information provided in this form and indicates my willingness to voluntarily participate in this user testing session. I have been provided a blank copy of this consent form for my records.

Signature:_____ Date:_____

5.3 APPENDIX 3: SYSTEM USABILITY SCALE

System Usability Scale Questionnaire

	Strongly Disagree				Strongly Agree	Comments
Question	1	2	3	4	5	
I think I would like to use the system frequently						
I found the system complex						
I thought the system was easy to use						
I think I would need further training and technical support						
I found the various functions in this system well integrated						
I felt confident using the system						
I found the system intuitive						
I found font and color appealing						

Comments and additional Recommendations:

5.4 APPENDIX 4: INCENTIVE RECEIPT AND ACKNOWLEDGMENT FORM

ClinNext™
SabiaMed Healthcare Technologies

Receipt and Acknowledgement

I hereby acknowledge the receipt of a complementary lunch and a complementary gift bag for my participation in a research study run by the Quality Assurance Department of Sabiamed.

Printed Name:

Address:

Signature: Date:

Signature of Witness:

Witness Printed Name:

Date:

5.5 APPENDIX: Test Cases

Test Case 1:

Patient (assigned by the instructor) was admitted to the hospital. Using the Medical Record icon in the ADT Module please document the following:

An Allergy for Penicillin with an Anaphylaxis Reaction and a High Severity

-------Stop until further Instructions---------

Please circle the best way you can describe the level of complexity of each of the following (1 – Very Easy and 5 = Very Difficult)

Locate a specific allergy and its reactions

Rating	1	2	3	4	5

Visualize Allergies from the patients

Rating	1	2	3	4	5

----For testing Personnel only

Time it took to complete: _____

Success Rating:

Easy Completed	Completed with Help	Not completed

Comments:

Optimal Path was used: ____ Yes ___No

Test Case 2:

Patient (assigned by the instructor) was admitted to the hospital. Using the Medical Record icon in the ADT Module please document the following:

The patient has an Active Medication (currently takes) Cardizem 30 MG daily every Morning (1 tablet) orally. He/she started taking this medication in January 2015 and his last dosage was this morning.

-------Stop until further Instructions---------

Please circle the best way you can describe the level of complexity of each of the following (1 – Very Easy and 5 = Very Difficult)

Locate the medication and enter the specification

Rating	1	2	3	4	5

Visualize the medication list specified by the patient

Rating	1	2	3	4	5

----For testing Personnel only

Time it took to complete: _____

Success Rating:

Easy Completed	Completed with Help	Not completed

Comments:

Optimal Path was used: ____ Yes ___No

Test Case 3:

Patient (assigned by the instructor) was admitted to the hospital. Using the Medical Record icon in the ADT Module please document the following:

Modify the current allergy list and add an allergy for Red Dye with a reaction of Hives and a Severity set to Moderate to Severe.

--------Stop until further Instructions---------

Please circle the best way you can describe the level of complexity of each of the following (1 – Very Easy and 5 = Very Difficult)

Locate a specific allergy and its reactions

Rating	1	2	3	4	5

Visualize Allergies from the patients

Rating	1	2	3	4	5

----For testing Personnel only

Time it took to complete: _____

Success Rating:

Easy Completed	Completed with Help	Not completed

Comments:

Optimal Path was used: ____ Yes ___No

Test Case 4:

Patient (assigned by the instructor) was admitted to the hospital.

Using the most intuitive options add and order for the following:

- A CBC order with a STAT Priority for the patient
- A Chest Single View X Ray with a reason for study “Patient expressed symptoms with a persistent cough in this morning routine check” and Instructions “Ruling Out Pneumonia Like Symptoms”. The Priority should be set to STAT
- A medication order for Ampicillin Oral Capsule 500 MG, with a dosage of 1 tablet every 12 hours orally for 7 days beginning today.

-------Stop until further Instructions---------

Please circle the best way you can describe the level of complexity of each of the following (1 – Very Easy and 5 = Very Difficult)

Locate each type of order

Rating	1	2	3	4	5

Insert Lab and Rad Orders

Rating	1	2	3	4	5

Insert Medication Order

Rating	1	2	3	4	5

View Alert on Medication Interaction with Allergy (Drug to Allergy Interaction)

Rating	1	2	3	4	5

----For testing Personnel only

Time it took to complete: _____

Success Rating:

Easy Completed	Completed with Help	Not completed

Comments:

Optimal Path was used: ____ Yes ___No

Test Case 5:

Patient (assigned by the instructor) was admitted to the hospital. Perform the following:

Access the medical record of the patient and review the Problem List of the patient. Resolve the Diagnostic of Influenza.

--------Stop until further Instructions---------

Please circle the best way you can describe the level of complexity of each of the following (1 – Very Easy and 5 = Very Difficult)

Locate Problem List

Rating	1	2	3	4	5

Resolve the Problem

Rating	1	2	3	4	5

----For testing Personnel only

Time it took to complete: _____

Success Rating:

Easy Completed	Completed with Help	Not completed

Comments:

Optimal Path was used: ____ Yes ___No

Test Case 6:

Patient (assigned by the instructor) was admitted to the hospital. Perform the following:

Review the Clinical Decision Support for the patient and use the external links to access any additional information that has been queried by the application.

--------Stop until further Instructions---------

Please circle the best way you can describe the level of complexity of each of the following (1 – Very Easy and 5 = Very Difficult)

Locate Clinical Decision Support

Rating	1	2	3	4	5

Review Clinical Decision Support

Rating	1	2	3	4	5

Access External Links

Rating	1	2	3	4	5

----For testing Personnel only

Time it took to complete: _____

Success Rating:

Easy Completed	Completed with Help	Not completed

Comments:

Optimal Path was used: ____ Yes ___No

Test Case 7:

Patient (assigned by the instructor) was admitted to the hospital. Perform the following:

Add an E-prescription to your patient for Zantac 150mg. The patient states he lives in Minneapolis, Minnesota and his/her preferred pharmacy is Druglix.

--------Stop until further Instructions---------

Please circle the best way you can describe the level of complexity of each of the following (1 – Very Easy and 5 = Very Difficult)

Insert E-prescription

Rating	1	2	3	4	5

Visualize Prescriptions for the patient

Rating	1	2	3	4	5

----For testing Personnel only

Time it took to complete: _____

Success Rating:

Easy Completed	Completed with Help	Not completed

Comments:

Optimal Path was used: ____ Yes ___No

Test Case 8:

Patient (assigned by the instructor) was admitted to the hospital. Perform the following:

Review the information of the Medical Record and record the Sexual Identity of the Patient as Male to Female transsexual. Also, Document the sexual preference as bisexual.

--------Stop until further Instructions---------

Please circle the best way you can describe the level of complexity of each of the following (1 – Very Easy and 5 = Very Difficult)

Locate the information within the Medical Record

Rating	1	2	3	4	5

Documentation of the information

Rating	1	2	3	4	5

----For testing Personnel only

Time it took to complete: _____

Success Rating:

Easy Completed	Completed with Help	Not completed

Comments:

Optimal Path was used: ____ Yes ___No