

ONC Real World Test Plan

Physician's Solution v 11.0

Document creation Date: 10/14/2024

Created By: MD Charts LLC

Reviewed by: MD Charts LLC

Account No: 10359

Table of Contents

GENERAL INFORMATION	3
JUSTIFICATION FOR REAL WORLD TESTING APPROACH	4
TESTING ENVIRONMENTS	5
STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI))	5
MEASURES USED IN OVERALL APPROACH	6
Justification for selecting these measures:	6
Care Setting(s):	7
Data Scoring:	8
Expected Outcomes:	12
SCHEDULE OF KEY MILESTONES:	53

GENERAL INFORMATION

Plan Report ID Number: [For ONC-Authorized Certification Body use only]

Developer Name: MD Charts, LLC

Product Name(s): Physician's solution

Version Number(s): 11.0

Certified Health IT Product List (CHPL) ID(s): 15.07.09.2479.PH01.11.01.1.230117

Developer Real World Testing Page URL:

https://mraemr.com:47102/documentation/RWT_LandingPage.asp

JUSTIFICATION FOR REAL WORLD TESTING APPROACH

Introduction This document outlines the process and methodologies for conducting real-world testing of ONC certified criteria in a production environment. The objective of this testing is to ensure the comprehensive evaluation of all aspects of the application and end-to-end real patient workflows. Certified providers and medical staff will be actively involved in performing test procedures using the template provided.

Testing Methodologies To ensure thorough coverage of different patient workflows and settings, various testing methodologies will be employed during the testing process. These methodologies include:

- a. **Test-driven approach:** This methodology focuses on designing and executing tests based on specific criteria and requirements. It helps in ensuring that the application functionalities meet the specified criteria.
- b. **Behaviour-driven approach:** This methodology emphasizes the collaboration between technical and non-technical team members to define user behaviors and expectations. It promotes the understanding of how the application should function and behave in different scenarios.
- c. **Session-based approach:** This methodology involves structured sessions in which testers perform predefined tasks, record their actions, and provide feedback. It helps in identifying potential issues and improving the overall user experience.

Coverage of Patient Workflows The testing methodologies mentioned above will cover a wide range of patient workflows, including but not limited to:

- a. **Organizations of varying sizes:** The testing will encompass small to large organizations, ensuring that the application meets the needs of different healthcare providers.
- b. **Different settings:** The application will be tested in various settings such as hospitals, clinics, and private practices to ensure its adaptability across different healthcare environments.
- c. **Volume of patient records:** The testing will be conducted using different volumes of patient records to evaluate the performance and scalability of the application.
- d. **All components of the system:** Each component of the application will be thoroughly tested to ensure its proper functionality and integration with other modules.
- e. **Interoperability of records:** The testing will focus on the seamless exchange of patient records across different systems to ensure interoperability and compliance with standard protocols.
- f. **All certified Health IT modules:** The testing will verify the compliance of all certified Health IT modules within the application to meet the ONC certification criteria.

Conclusion By utilizing a combination of test-driven, behaviour-driven, and session-based approaches, this real-world testing aims to provide a comprehensive evaluation of the application's compliance with the ONC certified criteria. The involvement of certified providers and medical staff will ensure that the testing procedures align with real-life scenarios, enhancing

the quality and effectiveness of the testing process. Through this rigorous testing, potential issues can be identified, leading to improvements in the functionality, interoperability, and overall performance of the application in real patient workflows.

TESTING ENVIRONMENTS

Testing will be performed in combination of production systems and test environments. Most of the criteria's will be tested in production environments and some will be performed in test environment with the replica of real patient data.

STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI))

Not Applicable at this moment as we have not completed any standard update.

We will be updating Physician's solution software to match the new standards of all HealthIT modules.

MEASURES USED IN OVERALL APPROACH

Care Coordination

170.315(b)(1) Transitions of care

170.315(b)(2) Clinical information reconciliation and incorporation

170.315(b)(10) Electronic Health Information export

Clinical Quality Measures

170.315(c)(1)—record and export

170.315(c)(2)—import and calculate

170.315(c)(3)—report

Patient Engagement

170.315(e)(1) View, download, and transmit to 3rd party

Public Health

170.315(f)(1) - Transmission to immunization registries

170.315(f)(2) Transmission to public health agencies — syndromic surveillance

170.315(f)(5) Transmission to public health agencies — electronic case reporting

170.315(f)(6) Transmission to public health agencies — antimicrobial use and resistance reporting

170.315(f)(7) Transmission to public health agencies — health care surveys

Application Programming Interfaces

170.315(g)(7) Application access— patient selection

170.315(g)(10) Standardized API

170.315(g)(9) Application access— all data request

Electronic Exchange

170.315(h)(1) Direct Project

Justification for selecting these measures:

Most customers of Physician's solution software use the above criteria list on a regular basis. This also will help us get feedback from our customer base and make our product bug free, in turn

ensuring that our customers do not hit any showstopper defects in the real time patient care settings.

Care Setting(s):

We will be performing real world testing in below care settings:

Outpatient clinics:

We have chosen this care setting as 70% of our customers are in these kinds of settings. It will really help us to cover all end-to-end scenarios in the production environment.

Nursing home facility:

30% of our customers are in this care setting. We need to cover all the workflows of this setting, to ensure our product is rock solid in different care settings.

Participant instructions:

The administrator read the following instructions aloud to each participant:

Thank you for participating in this study. Your input is very important. Our session today will last about 480 minutes. During that time, you will use an instance of an electronic health record. I will ask you to complete a few tasks using this system and answer some questions. You should complete the tasks as quickly as possible, making as few errors as possible. Please try to complete the tasks on your own following the instructions very closely. Please note that we are not testing you, we are testing the system. Therefore, if you have difficulty, all this means is that something needs to be improved in the system. I will be here in case you need specific help, but I am not able to instruct you or provide help in how to use the application. Overall, we are interested in how easy (or how difficult) this system is to use, what in it would be useful to you, and how we could improve it. I did not have any involvement in its creation, so please be honest with your opinions. Your name will not be associated with your comments at any time. Should you feel it necessary you are able to withdraw at any time during the testing.

Following the procedural instructions, participants were shown the EHR and as their first task and time were told to complete the task. Once this task was complete, the administrator gave the following instructions:

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.

Data Scoring:

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

Measure	Rationale and Scoring
Effectiveness: Task Success	A task was counted as a “Success” if the participant was able to achieve the correct outcome, without assistance, within the time allotted on a per task basis. Task times were recorded for successes. Observed task times divided by the optimal time for each task is a measure of optimal efficiency. Optimal task performance time, as benchmarked by expert performance under realistic conditions, is recorded when constructing tasks.
Effectiveness: Task Failure	If the participant abandoned the task, did not reach the correct answer or performed it incorrectly, or reached the end of the allotted time before successful completion, the task was counted as a “Failures.”
Efficiency: Task Deviation	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 optimal steps to provide a ratio of path deviation.
Efficiency: Task Time	Each task was timed from when the administrator said “Begin” until the participant said, “Done”. Only task times for tasks that were successfully completed were included in the average task time analysis.
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 of 1 (Very Difficult) to 5 (Very Easy). These data are averaged across participants. Common convention is that average ratings for systems judged easy to use should be 3.3 or above. To measure participants’ confidence in and likeability of the Physician’s Solution 6.0 overall, 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.

Results:

The results of the usability test were calculated according to the methods specified in the Usability Metrics section above.

Sr.	Task	Completed Successfully?	Completed in Time?	Time Deviation
1	Transitions of care			
2	Clinical information reconciliation and incorporation			
3	Electronic Health Information export			
4	CQM record and export			
5	CQM import and calculate			
6	CQM report			
7	View, download, and transmit to 3rd party Public Health			
8	Transmission to immunization registries			
9	Transmission to public health agencies — syndromic surveillance			
10	Transmission to public health agencies — electronic case reporting			
11	Transmission to public health agencies — antimicrobial use and resistance reporting			
12	Transmission to public health agencies — health care surveys			
13	Application access— patient selection			
14	Standardized API			
15	Application access— all data request Electronic Exchange			
16	Direct Project			

Effectiveness:

Most users praised the new system. They were excited to see the newly built module for Clinical Information Reconciliation and Clinical Decision Support.

Major Findings:

The users took a little extra time on Clinical Information Reconciliation and Clinical Decision Support. Overall, they were satisfied to see the newly added parameters in the Clinical Decision Support but wanted to see a little improvement in the current workflow.

Efficiency:

Most of the tasks were completed by the users on time with deviations in Computerized Provider Entry (Lab), Clinical Information Reconciliation and Clinical Decision Support.

Satisfactions:

All the users were satisfied with the overall workflow and provided a few suggestions to make it more user- friendly.

Areas for Improvement:

The users were a little unsatisfied with the speed of the system and wanted to improve the speed and performance.

Participant Demographics:

Following is a high-level overview of the participants in this study

Gender	
Men	
Women	
Total (Participants)	

Occupation / Role	
Physician	
Nurse Practitioner	
Other	
Total (Participants)	

Years of experience	
0-5	
6-10	
10+	
Total Participants	

Facility Use of EHR	
All Paper	
All Electronic	
Some Paper, Some Electronic	
Total Participants	

Expected Outcomes:

Task 1: 170.315 (b)(1) Transition of care

Take the participant to the starting point for the task. Reconciliation of Medications criteria test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315 (b)(1) Transition of care

Send and receive via edge protocol

Send transition of care/referral summaries through a method that conforms to the standard specified by ONC and that leads to such summaries being processed by a service that has implemented the standard specified.

Receive transition of care/referral summaries through a method that conforms to the standard specified in ONC from a service that has implemented the standard specified.

Receive and make available the contents of a XDM package formatted when the technology is also being certified using an SMTP-based edge protocol.

Validate C-CDA conformance – system performance. Demonstrate the ability to detect valid and invalid transition of care/referral summaries received

Display in human-readable format the data included in the transition of care/referral summaries received and formatted

Enable a user to create a transition of care/referral summary formatted using the Continuity of Care Document, Referral Note which includes,

1. Common Clinical Data Set
2. Assessment and plan of treatment
3. Goals
4. Health concerns
5. Unique device identifier(s) for a patient's implantable device(s)
6. Encounter diagnoses
7. Cognitive status.
8. Functional status

9. The reason for referral; and referring or transitioning provider's name and office contact information

10. Patient matching data

This criterion needs to complete all scenarios, and each task mentioned in the below:

Scenario: Enter Test Data in EMR

i Enter Test data in EMR

i.a Navigate to a patient chart and enter the test data as per the ONC Test data script

i.b Display the entered data has all below data,

Common Clinical Data Set

Encounter diagnoses

Cognitive status

Functional status

Reason for referral

Referring or transitioning provider's name and office contact information

Patient matching data

First name, last name, previous name, middle name (including middle initial), suffix

Address

Phone Number

DOB

Birth Sex

ii Create CCDA and Referral Note Reports for the Patients ii.a Click on the

CCDA option and generate the CCDA report ii.b Click on the Referral note

option and generate the Referral Note report.

iii Validate the generated report in ETT site iii.a Select the SMTP Cases and

enter the SMTP host name, SMTP direct email address and other data.

- iii.b Upload the CCDA document got from the above step's against the SMTP test cases and check the status is Passed
- iv *Validate Send Messages from Message Tracking*
 - iv.a Select the Message Tracking option and enter the host name, direct email address and other data.
 - iv.b Run the SMTP test cases and check the Health IT Module successfully performed delivery notification handling
- v *Validate Receive Messages from Message Tracking*
 - v.a Select the SMTP Test Cases option and enter the SMTP host name, SMTP direct email address and other data.
 - v.b Run the SMTP test cases and check the Health IT Module successfully received the messages.
- vi *Validate XML files in the C-CDA R2.1 Validator*
 - vi.a Validate the XML files of the test patient's in the C-CDA R2.1 Validator against the sample file.
 - vi.b Check the each file has the following sections,
 - Common Clinical Data Set
 - Encounter diagnoses
 - Cognitive status
 - Functional status
 - Reason for referral
 - Referring or transitioning provider's name and office contact information
 - Patient matching data
 - First name, last name, previous name, middle name (including middle initial), suffix
 - Address
 - Phone Number
 - DOB
 - Birth Sex
 - vi.c Check all the XML files are valid files against its sample.

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 2: 170.315 (b)(2) Clinical information and reconciliation and incorporation

Take the participant to the starting point for the task. Reconciliation of Medications criteria test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315 (b)(2) Clinical information and reconciliation and incorporation

In a single view display the data from at least two sources in a manner that allows a user to view the data and their attributes, which must include, at a minimum, the source and last modification date.

Enable a user to create a single reconciled list of each of the following: Medications; Allergies and Intolerances; and problems.

Enable a user to review and validate the accuracy of a final set of data.

Upon a user's confirmation, automatically update the list, and incorporate Medications, Allergies and intolerance and Problems

Based on the data reconciled and incorporated, the system must able to create a file formatted using the Continuity of Care Document template

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Reconcile Medications Data

1. *Navigate to Administrator site and Import test data for Medication reconciliation* vi.d
Import the Test data for reconciling the Medication list given by the
ONC board.

- vii *Reconcile the Imported test data* vii.a Go to the Patient's chart for
whom the test data is imported vii.b Navigate to Medications category
vii.c Reconcile the necessary
medication and click confirm

- viii *Generate CCDA Document* viii.a Generate the CCDA
file for the above patient
viii.b Verify the reconciled data is displayed in the Medications section

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Scenario: Reconcile Allergy Data ix *Navigate to Administrator site and Import test*

data for Allergy reconciliation ix.a Import the Test data for reconciling the Allergy list given by the ONC board.

x Reconcile the Imported test data

x.a Go to the Patient’s chart for whom the test data is imported

x.b Navigate to Allergy category

x.c Reconcile the necessary Allergy shown in single view and click confirm

xi Generate CCDA Document

xi.a Generate the CCDA file for the above patient

xi.b Verify the reconciled allergy data is displayed in the Allergy

section **Success:**

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medication data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds) Task

Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Scenario: Reconcile Problems Data xii *Navigate to Administrator site and Import test data for Problems reconciliation* xii.a *Import the Test data for reconciling the Problems list given by the ONC board.*

xiii *Reconcile the Imported test data* xiii.a *Go to the Patient’s chart for whom the test data is imported* xiii.b *Navigate to Problems category* xiii.c *Reconcile the necessary Problems shown in single view and click confirm*

xiv *Generate CCD A Document* xiv.a *Generate the CCD A file for the above patient* xiv.b *Verify the reconciled allergy data is displayed in the Allergy section*

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 3: 170.315(b)(10) Electronic Health Information export

Take the participant to the starting point for the task. Electronic Health Information export criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315(b)(10) Electronic Health Information export

- a. Single patient - Enable a user to timely create an export file(s) with all of a single patient’s electronic health information stored at the time of certification by the product, of which the Health IT Module is a part.
- b. A user must be able to execute this capability at any time the user chooses and without subsequent developer assistance to operate.
- c. Limit the ability of users who can create export file(s) in at least one of these two ways:
(1) To a specific set of identified users (2) As a system administrative function.
- d. The export files(s) created must be electronic and in a computable format.
- e. Patient Population - Create an export of all the electronic health information that can be stored at the time of certification by product of which the Health IT Module is a part.

This criterion needs to complete all scenarios, and each task mentioned in the below:

Scenario: Single patient Electronic Health information export

1. Create an export file and validate that it can be executed at any time.
 1. Navigate to Admin Site using the user credentials who has Admin Security rights.
-

-
2. Go to Reports section
 3. Enter any start date\time and end date\time and click Export
 4. Verify that clicking "CCDA Batch Export" in Reports generates the CCDA file, and it appears in the CCDA Batch Export folder on the server.
2. Limit ability of users who can create export
 1. Navigate to Administrator site using the user who has Admin Security rights
 1. Go to Admin site using the user credentials who has Admin Security rights.
 2. Go to Reports and export the CCDA for some patients.
 3. Check user who has Admin Security rights can export CCDA data
 2. Navigate to Administrator site using the user who does not have Admin Security rights
 1. Go to Admin site using the user credentials who does not have Admin Security rights.
 2. Go to Reports and check the option to export the CCDA data is not visible for non admin user
 3. Electronic and computable format
 1. Verify that every time "Generate CCDA Export" is clicked, a new CCDA file is generated in both XML and PDF formats and saved in the respective folders on the server.

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Scenario: Patient population Electronic Health information export

1. Create an export file.
 1. Navigate to Admin Site using the user credentials who has Admin Security rights.
 2. Go to Reports section
 3. Enter any start date\time and end date\time and click Export
 4. Verify that clicking "CCDA All" exports CCDA files for all patients in the selected date range, and these files are shown in the CCDA ALL Export folder on the server.

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 4: 170.315(c)(1) Clinical quality measures—record and export

Take the participant to the starting point for the task. CQM – record and export criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315(c)(1) Clinical quality measures—record and export

For each and every CQM for which the technology is presented for certification, the technology must be able to record all of the data that would be necessary to calculate each CQM.

Data required for CQM exclusions or exceptions must be codified entries, which may include specific terms as defined by each CQM, or may include codified expressions of “patient reason,” “system reason,” or “medical reason.”

Must be able to export a data file at any time the user chooses and without subsequent developer assistance to operate.

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Record all the Test Data in EMR *i*

Enter the test data in the EMR

- i.a Navigate to EMR and create a new patient chart
- i.b Enter all the Test data related to CQM. indicated in Cypress

ii Export the CQM Data

- ii.a Export a de-duplicated data file in QRDA Category I format for a single patient and for multiple patients for each CQM being tested.
- ii.b Navigate to Admin Site and go to Reports section
- ii.c Access the link to export the QRDA-1 categories file for a single patient.
- ii.d Access the link to export the QRDA-1 categories file

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No) Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 5: 170.315 (c)(2) Clinical quality measures—import and calculate

Take the participant to the starting point for the task. CQM – import and export criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315 (c)(2) Clinical quality measures—import and calculate

Enable a user to import a data file for one or multiple patients. A user must be able to execute this capability at any time the user chooses and without subsequent developer assistance to operate.

Calculate each and every clinical quality measure for which it is presented for certification.

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Calculate the Numerator and Denominator

1. *Calculate the QRDA -i and QRDA -iii files* ii.e Import the QRDA Category I files for all of the data needed to calculate each of the CQMs presented for testing, for one or multiple patients.
ii.f Calculate the aggregate reports for each of the CQMs being tested, based upon the imported and de-duplicated data set. ii.g Display the QRDA Category III reports.
ii.h Save the QRDA Category III aggregate reports.

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds) Task

Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 6: 170.315(c)(3) Clinical quality measures—report

Take the participant to the starting point for the task. CQM – record and export criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315(c)(3) Clinical quality measures—report

Enable a user to electronically create a data file for transmission of clinical quality measurement data

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Record all the Test Data in EMR i

Enter the test data in the EMR

- i.a Navigate to EMR and create a new patient chart
- i.b Enter all the Test data related to CQM. indicated in Cypress

ii Export the CQM Data

- ii.a Generate an aggregate report with calculated summary data for the patient population of each CQM being tested in QRDA Category III format.
- ii.b Save the QRDA Category III aggregate reports.
- ii.c Generate a de-duplicated report in QRDA Category I format for each CQM being tested.
- ii.d Save the file as the CMS measure number ii.e Verify the generated reports are validated in the Cypress Tool and it is passed.

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds) Task

Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 7: 170.315 (e)(1) View, download, and transmit to 3rd party

Take the participant to the starting point for the task. View, download, and transmit to 3rd party criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

Relied upon Software: Domain Time II (Version NTPv4)

ONC Criteria: 170.315 (e)(1) View, download, and transmit to 3rd party

Patients (and their authorized representatives) must be able to use internet-based technology to view, download, and transmit their health information to a 3rd party

Patient has the ability to view Common Clinical Data Set which includes,

- 1.Assessment and plan of treatment
- 2.Goals
- 3.Health concerns
- 4.Unique device identifier(s) for a patient's implantable device(s)
- 5.Provider's name and office contact information
- 6.Laboratory test report(s)
- 7.Diagnostic image report(s)

Patient must be able to use technology to download an ambulatory summary in Human readable format

Patients (and their authorized representatives) must be able to Transmit the ambulatory summary via,

Email transmission to any email address

An encrypted method of electronic transmission

For a specific Time frame selection the View, Download and Transmit should be possible.

The following information must be recorded and made accessible to the patient (or his/her authorized representative)

- 1.The action(s) (i.e., view, download, transmission) that occurred;
- 2.The date and time each action occurred
- 3.The user who took the action; and
- 4.Where applicable, the addressee to whom an ambulatory summary or inpatient summary was transmitted.

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Patient can View the Common Clinical Data Set

1. *Navigate to Patient portal and view the CCDA document in human readable format*

ii.f Go to Patient portal and navigate to the Clinical Documents section ii.g

Check the CCDA documents of the visible and open one of the document and verify it has the following data,

1.Assessment and plan of treatment

2.Goals

3.Health concerns

4.Unique device identifier(s) for a patient's implantable device(s)

5.Provider's name and office contact information

6.Laboratory test report(s)

7.Diagnostic image report(s)

iii *Navigate to Patient portal and view the CCDA document in human readable*

format iii.a Enter a Date range and click on Submit iii.b Verify the CCDA

document for the specified time range is shown iii.c Open the CCDA

document and verify it has al the CCDA data.

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Scenario: Patient can Download the Common Clinical Data Set iv *Navigate to*

Patient portal and Download the CCDA document in human readable format iv.a Enter a Date range and click on Submit

iv.b Verify the CCDA document for the specified time range is shown iv.c Download the CCDA document in the local and verify it is in human readable format with all the Common Clinical Data Set.

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Scenario: Patient can Transmit the Common Clinical Data Set v

Navigate to Patient portal and transmit the CCDA in Simple Messages

v.a Go to Messages and click Simple Messages

v.b Enter a Date range from which the CCDA document needs to be transmitted

v.c Select one or many files and enter the To addressee

v.d Click Send and check the receiver has got the simple email

vi *Navigate to Patient portal and transmit the CCDA in Direct Messages vi.a*
Go to Messages and click Direct Messages vi.b Enter a Date range from
which the CCDA document needs to be transmitted
vi.c Select one or many files and enter the To addressee vi.d Click Send
and check the receiver has got the Direct email **Success:**

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Scenario: Patient can view the Activity logs of the patient portal vii *Activity logs*
when logged in as Patient vii.a Go to Activity Logs and check all the actions done above
is recorded and shown viii Activity logs when logged in as Patient’s representatives

a. Login to Patient Portal using Patient representative

b. Go to Activity Logs and check all the actions done is recorded and shown

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 8: 170.315 (f)(1) Transmission to immunization registries

Take the participant to the starting point for the task. Transmission of Immunization registries criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315 (f)(1) Transmission to immunization registries

Create immunization information for electronic transmission

Enable a user to request, access, and display a patient's evaluated immunization history and the immunization forecast from an immunization registry

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Create Immunization Data for a Patient in EMR

1. *Navigate to EMR and enter the immunization details for patient viii.a*

Create a Patient in the EMR as per the test data given in the NIST

HL7v2 Immunization Test Suite viii.b Enter the Immunization data
to the above patient as per the NIST HL7v2 Immunization Test Suite

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Scenario: Generate HL7 message

- ix *Generate the HL7 message in the Admin site for the patient*
- ix.a Go To Admin site and navigate to Reports and select Immunization link
- ix.b Select the patient for whom the HL7 message needs to be generated
- ix.c Go to the location in which the message is stored and copy the messages

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success -

Task Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Scenario: Validate the generated HL7 message in the *NIST HL7v2 Immunization Test Suite*

x *Validating the HL7 message*

x.a Paste the HL7 message in the *NIST HL7v2 Immunization Test Suite* and click *on the Validate button*

x.b *Download the result and check the status.*

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 9: 170.315 (f)(2) Transmission to public health agencies – syndromic surveillance

Take the participant to the starting point for the task. Transmission of syndromic surveillance criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315 (f)(2) Transmission to public health agencies – syndromic surveillance

Create syndrome-based public health surveillance information for electronic transmission

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Create Syndromic Surveillance Data for a Patient in EMR

1. *Navigate to EMR and enter the syndromic surveillance details for patient*

x.c Create a Patient in the EMR as per the test data given in the NIST HL7v2

Syndromic Surveillance Test Suite

- x.d **Enter the syndromic surveillance data to the above patient as per the NIST**

HL7v2 Syndromic Surveillance Test Suite Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Scenario: Generate HL7 message xi *Generate the HL7 message in the Admin site for the patient xi.a* Go To Admin site and navigate to Reports and select syndromic surveillance link.

xi.b Select the patient for whom the HL7 message needs to be generated for the syndromic surveillance criteria.

xi.c Go to the location in which the message is stored and copy the messages

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Scenario: Validate the generated HL7 message in the *NIST HL7v2 Syndromic*

Surveillance Test Suite xii *Validating the HL7 message for Registration* xii.a Paste the HL7 message in the NIST HL7v2 Syndromic Surveillance

Test Suite *for the Registration_A04 and click on the Validate button* xii.b

Download the result and check the status.

xiii *Validating the HL7 message for Discharge* xiii.a Update the patient data in the EMR as per the test data given in the

Discharge_A03 xiii.b Generate the HL7 message from the Admin site and copy the generated messages

xiii.c ***Paste the HL7 message in the NIST HL7v2 Syndromic Surveillance Test Suite for the Discharge_A03 and click on the Validate button.***

xiii.d ***Download the report and check the status***

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medication data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 10: 170.315(f)(5) Transmission to public health agencies — electronic case reporting

Take the participant to the starting point for the task. Electronic Case Reporting criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315(f)(5) Transmission to public health agencies — electronic case reporting

Consume and maintain a table of trigger codes to determine which encounters may be reportable

Match a patient visit or encounter to the trigger code based on the parameters of the trigger code table

Create the Report that includes,

Common Clinical Data Set

Encounter diagnoses

Provider's name, office contact information, and reason for visit.

An identifier representing the row and version of the trigger table that triggered the case report

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Trigger Codes in the Database

1. *Show the trigger codes in the EMR database* xiii.e Connect to SQL server and access the Database to which the EMR is connected xiii.f Access the trigger codes table and check all the trigger codes are in the Database

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Scenario: Electronic Case Report Generation *xiv Generate Electronic Case Report in*

EMR *xiv.a* Navigate to Patient’s chart and enter one Encounter code from the trigger codes

xiv.b Enter other test data into the EMR *xiv.c* Generate the Electronic and check the followings are included in the report,

Common Clinical Data Set

Encounter diagnoses

Provider's name, office contact information, and reason for visit.

An identifier representing the row and version of the trigger table that triggered the case report

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 11: 170.315 (f)(6) Transmission to public health agencies – antimicrobial use and resistance reporting

Take the participant to the starting point for the task. Anti-microbial use and Resistance Reporting criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315 (f)(6) Transmission to public health agencies – antimicrobial use and resistance reporting

Create antimicrobial use and resistance reporting information for electronic transmission

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Generate Antimicrobial Use and Resistance Data Report and Validate the report

1. *Enter Antimicrobial Use and Resistance Data* xiv.d Navigate to a patient chart and enter the test data as per the ONC Test data script
xiv.e Display the entered data
- xv *Generate Antimicrobial Use and Resistance report* xv.a Access the Admin site and navigate to Reports section and select
Antimicrobial Use and Resistance link xv.b Generate the CDA's for AUR, ARO, and AUP.
xv.c Run the CDA's in the CDC's NHSN CDA Validator Test Tool and validate the result
- xvi *Validate Antimicrobial Use and Resistance report data* xvi.a Validate the above generated report in the CDC's NHSN CDA
Validator test tool which is installed locally.

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%)

Task Rating - Scale Type Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 12: 170.315 (f)(7) Transmission to public health agencies – health care surveys

Take the participant to the starting point for the task. Healthcare Survey criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315 (f)(7) Transmission to public health agencies – health care surveys

Create health care survey information for electronic transmission

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Generate Health Care Report and Validate the report

1. *Enter Healthcare survey data* xvi.b Navigate to a patient chart and enter the test data as per the ONC Test data script

xvi.c Display the entered data

- xvii *Generate Healthcare survey report* xvii.a Access the Admin site and navigate to Reports section and select

Antimicrobial Use and Resistance link xvii.b Generate

the CDA's for AUR, ARO, and AUP.

xvii.c Run the CDA's in the CDC's NHSN CDA Validator Test Tool and validate the result

xviii *Validate Healthcare survey report data* xviii.a *Validate the above generated report in the NIST Healthcare Survey Test Tool.*

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: "Very Easy" (1) to "Very Difficult" (5)

Task 13: 170.315 (g)(7) Application access – patient selection

Take the participant to the starting point for the task. Patient Selection using API criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315 (g)(7) Application access – patient selection

The technology must be able to receive a request with sufficient information to uniquely identify a patient and return an ID or other token that can be used by an application to subsequently execute requests for that patient's data.

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Access the API to get the Unique Patient Data i

Access the Postman tool and get the Unique Patient details

i.a Navigate to a Postman tool and enter the API that is used to get the unique patient details

i.b Enter the values for the parameters (ie) Patient Id.

i.c Click Submit

i.d Check the below Patient details are shown

1.Patient First Name

2.Patient Last Name

3.DOB

4.Gender

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medication data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 14: 170.315(g)(10) Standardized API

Take the participant to the starting point for the task. Test scenarios for this certification would typically involve ensuring that the standardized API functions as expected to facilitate to retrieval the data for the patient app, limited access app, EHR practitioner app, Single patient API, Multi patient API and Token related activities.

ONC Criteria: 170.315(g)(10) Application access— Standardized API

Respond to requests for patient data (based on an smart public client or other token) for each of the individual data categories specified in the Common Clinical Data Set and return the full set of requested data for that data category (according to the specified standards, where applicable) in a computable format.

This criterion needs to complete all scenarios and each task mentioned in the below:

Patient Demographics Retrieval:

Test Scenario: Retrieve patient demographic information, including name, date of birth, gender, address, and contact details, for a specific patient using the API. Verify that the API returns the complete and accurate patient demographic data in the specified FHIR format.

1. *Create a Patient in EMR using the Test Data given by ONC.*
 - i.e In EMR enter the Patient data given as in ONC Test Script
- ii *Access the API to get the Data for Demographics.*
 - ii.a Navigate to Postman tool and access the API links by giving the input values for a specific date.
 - ii.b Check the generated report has the following data,
 1. Patient Name
 2. Date of Birth

3. Gender
4. Race
5. Ethnicity
6. Address
7. Phone Number

Allergy Information Retrieval:

Test Scenario: Retrieve a patient's allergy information from the healthcare system using the standardized API. Validate that the API returns the list of known allergies for the patient, including details such as the allergen, reaction, and severity.

2. *Create a Patient in EMR using the Test Data given by ONC.*
 - ii.c In EMR enter the Patient data given as in ONC Test Script
 - iii *Access the API to get the Data for Allergy information.*
 - iii.a Navigate to Postman tool and access the API links by giving the input values for specific data.
 - iii.b Check the generated report has the following data,
 1. Allergen
 2. Reaction
 3. Severity
 4. Allergy Status
 5. Onset Date
 6. Recorded By
 7. Last Updated

Medication list Retrieval:

Test Scenario: Retrieve a patient's current medication list from the healthcare system through the API. Verify that the API provides comprehensive information about the patient's medications, including medication names, dosage, route, frequency, and prescribing physician.

3. *Create a Patient in EMR using the Test Data given by ONC.*

iii.c In EMR enter the Patient data given as in ONC Test Script

iv *Access the API to get the Data for Allergy information.*

iv.a Navigate to Postman tool and access the API links by giving the input values for specific data.

iv.b Check the generated report has the following data,

1. Medication Name
2. Medication Code
3. Dosage
4. Route of Administration
5. Frequency
6. Prescribing Physician
7. Start Date **Clinical Notes Retrieval:**

Test Scenario: Retrieve specific clinical notes or documents related to a patient's medical history, such as discharge summaries, progress notes, or consultation reports, using the API. Validate that the API returns the requested clinical notes in the appropriate format and includes relevant metadata.

4. *Create a Patient in EMR using the Test Data given by ONC.*

iv.c In EMR enter the Patient data given as in ONC Test Script

v *Access the API to get the Data for clinical notes.*

v.a Navigate to Postman tool and access the API links by giving the input values for a specific data.

v.b Check the generated report has the following data,

1. Note Title
2. Note Date and Time
3. Author
4. Note Text
5. Note Type
6. Encounter ID
7. Location

Laboratory Results Retrieval:

Test Scenario: Retrieve a patient's recent laboratory test results, such as blood tests, imaging reports, or pathology results, from the healthcare system via the API. Ensure that the API delivers the test results with associated observations, reference ranges, and timestamps.

5. *Create a Patient in EMR using the Test Data given by ONC.*

v.c In EMR enter the Patient data given as in ONC Test Script

- vi *Access the API to get the Data for clinical notes.*

vi.a Navigate to Postman tool and access the API links by giving the input values for a specific data.

vi.b Check the generated report has the following data,

1. Test Name
2. Test Code
3. Test LOINC Code
4. Test Date and Time

5. Test Specimen
6. Test Result
7. Reference Range

Immunization Records Retrieval:

Test Scenario: Retrieve a patient's immunization history from the EHR system using the standardized API. Verify that the API provides a comprehensive list of the patient's immunizations, including vaccine names, administration dates, and vaccine manufacturers.

1. Vaccine Name
2. Administration Date
3. Vaccine Manufacturer
4. Immunization Status
5. Dose Number
6. Dose Quantity
7. Vaccination Site

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success -

Task Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

Task 15: 170.315 (g)(9) Application access – all data request

Take the participant to the starting point for the task. All Data Category Request using API criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

ONC Criteria: 170.315 (g)(9) Application access – all data request

Respond to requests for patient data (based on an ID or other token) for all of the data classes at one time and return such data in a summary record which has,

1. The Common Clinical Data Set
2. Assessment and plan of treatment
3. Goals
4. Health concerns
5. Unique device identifier(s) for a patient's implantable device(s)

Respond to requests for patient data associated with a specific date as well as requests for patient data within a specified date range.

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Getting the Patient Data in the API's

6. *Create a Patient in EMR using the Test Data given by ONC.*

vi.c In EMR enter the Patient data given as in ONC Test Script

- vii *Access the API to get the Data for a specific date* vii.a Navigate to Postman tool and access the API links by giving the input values for a specific date. vii.b

Check the generated report has the following data,

1. The Common Clinical Data Set
2. Assessment and plan of treatment
3. Goals
4. Health concerns

5. Unique device identifier(s) for a patient's implantable device(s) viii *Access the API to get the Data for a specific date range* viii.a Navigate to Postman tool and access the API links by giving the input

values for a specific date range. viii.b Check the generated report has the following data,

1. The Common Clinical Data Set
2. Assessment and plan of treatment
3. Goals
4. Health concerns
5. Unique device identifier(s) for a patient's implantable device(s)

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: "Very Easy" (1) to "Very Difficult" (5)

Task 16: 170.315 (h)(1) Direct Project

Take the participant to the starting point for the task. Direct Project criteria to usability test tasks to aid verification that the report will contain all required test scenarios for this EHR capability submitted for testing.

Relied upon software: Data Motion Direct project.

ONC Criteria: 170.315 (h)(1) Direct Project

Able to send and receive health information including formatted only as a
“wrapped” message.

Delivery Notification in Direct

This criterion needs to complete all scenarios and each task mentioned in the below:

Scenario: Direct Messages testing in ETT tool

- 1. Install the necessary certificates for Direct Project* viii.c From the Edge Testing Tool site install the necessary certificates for Direct Project under Direct Testing.
- ix Verifying the hosted Certificate* ix.a Run the appropriate hosting test case in the Cert Discovery tab ix.b Enter the Direct email address ix.c Click Submit and check the results
- x Verifying the Direct Email Address*
x.a Enter Direct Email address and enter your email address in the Discover DCDT's Certificates section.
x.b Check the results in the recipient email address.
- xi Verifying Discovery Test Case* xi.a Send a message from the HIT Module to the Direct Address provided by the DCDT for each Discover DCDT's Certificates test case xi.b Check the results in the mentioned email address.
- xii Send Direct Messages* xii.a In the ETT tool click on Send Direct

Messages and enter the direct email address for the From and To fields. xii.b

Choose the Message content that needs to be sent xii.c Upload the encrypted certificates xii.d Click on Send

xii.e Check the Health IT Module successfully received the Direct Message and its contents, and the ETT received an MDN from the Health IT Module.

xiii Verifying HISP Testing & Delivery Notification xiii.a Navigate to HISP Testing & Delivery Notification section xiii.b Go To Message Tracking xiii.c Run the SMTP MP Test Messages after entering the Profile details.
xiii.d Check the ETT test results are successful.

Success:

Easily completed (Yes/No):

Completed with difficulty or help: Describe below (Yes/No)

Not completed: (Yes/ No)

Comments: It was easy to reconcile medications data in the EMR and able to change it without any difficulty.

Task Success - Task

Time - (seconds)

Task Errors (%) Task Rating -

Scale Type

Rating:

Overall, this task was: _____

Show participant written scale: “Very Easy” (1) to “Very Difficult” (5)

SCHEDULE OF KEY MILESTONES:

Key Milestone	Care Setting	Date/Timeframe
RWT plan development	Outpatient/Nursing home	11/1/2024
Preparing the Providers list	Outpatient/Nursing home	12/13/2024
Additional capability for data analysis	Outpatient/Nursing home	1/1/2025
Preparing users for the testing	Outpatient/Nursing home	2/3/2025
Performing testing	Outpatient/Nursing home	2/18/2025
Collecting Test information	Outpatient/Nursing home	5/12/2025
Validating the data	Outpatient/Nursing home	6/23/2025
Continue with phase wise criteria testing	Outpatient/Nursing home	8/14/2025
Completion of testing phases	Outpatient/Nursing home	10/1/2025
Final collection of the user data	Outpatient/Nursing home	11/14/2025
Generating report	Outpatient/Nursing home	12/12/2025

Final Questions:

2. What was your overall impression of this system?
3. What aspects of the system did you like most?
4. What aspects of the system did you like least?
5. Were there any features that you were surprised to see?
6. What features did you expect to encounter but did not see? That is, is there anything that is missing in this application?
7. Compare this system to other systems you have used.
8. Would you recommend this system to your colleagues?

Appendix 1: System Usability Scale Questionnaire:

strongly Agr 1	ee 2	Strongl 3	y Disagree 4	5
----------------------	---------	-----------	-----------------	---

1. I think that I would like to use this system frequently.

1	2	3	4	5
---	---	---	---	---

2. I found the system unnecessarily
Complex.

--	--	--	--	--

I thought the system was easy to use. .
3.

1	2	3	4	5
---	---	---	---	---

4. I think that I would need the support Of
a technical person to be able to use this
system.

1	2	3	4	5
---	---	---	---	---

5. I found the various functions in this
system were well integrated.

1	2	3	4	5
---	---	---	---	---

6. I thought there was too much
inconsistency in this system.

1	2	3	4	5
---	---	---	---	---

7. I would imagine that most people
would learn to use this system very quickly.

1	2	3	4	5
---	---	---	---	---

8. I found the system very
cumbersome to use .

1	2	3	4	5
---	---	---	---	---

1	2	3	4	5
---	---	---	---	---

1	2	3	4	5
---	---	---	---	---

9. I felt very confident using the System.

10. I needed to learn a lot of things before
I could get going with this system.

Attestation and Authorized Signature:

This Real-World Testing Plan is complete with all required elements, including measures that address all certification criteria and care settings. All information in this plan is up to date and fully addresses the health IT developers Real World testing requirements.

Authorized Representative name: Aaron Wachspress

Authorized Representative email: awachspress@mdcharts.net

Authorized Representative Phone: +1(516)381-3963

Authorized Representative Signature: Aaron Wachspress (Digitally signed)

Date: 11/11/2025

Health IT developer: MDCharts LLC



