

# 2025 Real-World Test Plan

Developer: Health Innovation Technologies, Inc

Product: RevolutionEHR

Version Number: 7

ONC-ACB Certification ID: 15.04.04.1591.Revo.07.00.1.181231

Developer Real World Test Page URL: <https://www.revolutionehr.com/certification-disclosures/>

## Document History

Version	Date	Author	Changes
1.0	October 29, 2024	KR	Finalized initial plan

## Table of Contents

Care and Practice Setting .....	5
Approach and Justification .....	5
Schedule of Key Milestones .....	5
Criterion-Specific Test Plans .....	6
(b)(1) – Transitions of Care .....	6
Methodology .....	6
Relied Upon Software .....	6
Care Setting .....	6
Conformance to Newer Standards Requirements .....	6
Testing Procedure .....	7
Expected Outcomes .....	7
Measurement/Metric .....	7
Justification of Approach .....	7
(b)(2) – Clinical Information Reconciliation and Incorporation .....	8
Methodology .....	8
Care Setting .....	8
Conformance to Newer Standards Requirements .....	8
Testing Procedure .....	8
Expected Outcomes .....	8
Measurement/Metric .....	8
Justification of Approach .....	8
(b)(10) – Data Export .....	9
Methodology .....	9
Care Setting .....	9
Conformance to Newer Standards Requirements .....	9
Testing Procedure .....	9
Expected Outcomes .....	9
Measurement/Metric .....	9
Justification of Approach .....	9
(b)(11) – Decision Support Interventions .....	10
Methodology .....	10
Relied Upon Software .....	10
Care Setting .....	10
Conformance to Newer Standards Requirements .....	10
Testing Procedure .....	10

Expected Outcomes.....	10
Measurement/Metric .....	11
Justification of Approach .....	11
(c)(1) – Clinical Quality Measures – Record and Export .....	12
Methodology .....	12
Care Setting .....	12
Conformance to Newer Standards Requirements .....	12
Testing Procedure.....	12
Expected Outcomes .....	12
Measurement/Metric.....	12
Justification of Approach.....	12
(c)(2) – Clinical Quality Measures – Import and Calculate .....	13
Methodology .....	13
Care Setting .....	13
Conformance to Newer Standards Requirements .....	13
Testing Procedure.....	13
Expected Outcomes .....	13
Measurement/Metric.....	13
Justification of Approach.....	13
(c)(3) – Clinical Quality Measures – Report.....	14
Methodology .....	14
Care Setting .....	14
Conformance to Newer Standards Requirements .....	14
Testing Procedure.....	14
Expected Outcomes .....	14
Measurement/Metric.....	14
Justification of Approach.....	14
(e)(1) – View, Download, and Transmit to 3 <sup>rd</sup> Party .....	15
Methodology .....	15
Relied Upon Software.....	15
Care Setting .....	15
Conformance to Newer Standards Requirements .....	15
Testing Procedure.....	15
Expected Outcomes .....	15
Measurement/Metric.....	15
Justification of Approach.....	16
(g)(7) – Application Access – Patient Selection.....	17
Methodology .....	17
Relied Upon Software.....	17
Care Setting .....	17
Conformance to Newer Standards Requirements .....	17

Testing Procedure .....	17
Expected Outcomes .....	17
Measurement/Metric .....	17
Justification of Approach .....	17
<b>(g)(9) – Application Access – All Data Request .....</b>	<b>18</b>
Methodology .....	18
Relied Upon Software .....	18
Testing Procedure .....	18
Expected Outcomes .....	18
Measurement/Metric .....	18
Justification of Approach .....	18
<b>(g)(10) – Standardized API for Patient and Population Services .....</b>	<b>19</b>
Methodology .....	19
Relied Upon Software .....	19
Care Setting .....	19
Conformance to Newer Standards Requirements .....	19
Testing Procedure .....	19
Expected Outcomes .....	19
Measurement/Metric .....	19
Justification of Approach .....	19
<b>(h)(1) – Direct Project .....</b>	<b>20</b>
Methodology .....	20
Relied Upon Software .....	20
Care Setting .....	20
Conformance to Newer Standards Requirements .....	20
Testing Procedure .....	20
Expected Outcomes .....	20
Measurement/Metric .....	20
Justification of Approach .....	20
<b>Attestation .....</b>	<b>21</b>

### Care and Practice Setting

RevolutionEHR version 7 is designed for eye care professionals (optometrists, ophthalmologists, opticians) delivering care in an ambulatory setting.

### Approach and Justification

RevolutionEHR is marketed to and utilized by eye care professionals in an ambulatory setting. The user base consists predominantly of optometrists in office-based practices with health information exchange needs surrounding communicating with other health care professionals. As an example, an optometrist using RevolutionEHR might receive a referral from another doctor in the community with that referral being accompanied by Direct-based exchange of a C-CDA. Similarly, an optometrist might initiate a referral to another doctor in the community and have the same electronic exchange needs. These clinical scenarios will be the foundation of our real-world testing.

RevolutionEHR is also used in the clinics of two optometric training institutions. Importantly, these are ambulatory settings with identical clinical needs to what is discussed above. As such, our testing will be performed in a private, office-based practice yet be applicable across the entire customer base.

### Schedule of Key Milestones

Key Milestone	Date/Timeframe
Identify providers to perform RWT	January 2025
Review testing procedures with providers	February 2025
Data collection and review	Quarterly 2025
Final collection of data / End of RWT	December 2025
Data analysis and RWT report creation	January 2026
Submission of RWT report to Drummond	February 2026

## **Criterion-Specific Test Plans**

### **(b)(1) – Transitions of Care**

#### **Methodology**

The aim of this criterion is to ensure:

1. That CEHRT can create and send valid C-CDA Release 2.1 documents following the Continuity of Care and Referral Note templates
2. That CEHRT can receive and validate inbound C-CDA documents and display any recorded errors for invalid C-CDA documents
3. That CEHRT can receive and parse valid C-CDA documents. Further for valid documents:
  - a. That CEHRT can display a human-readable view for all Common Clinical Data Set (CCDS) data elements
  - b. That CEHRT allows a user to display and hide sections of the human-readable document per user preference
  - c. That CEHRT allows a user to set a preferred order of sections in the human-readable document
  - d. That CERHT allows a user to set a preferred initial quantity of sections for display

RevolutionEHR's real-world test scenario will involve the movement of a patient from one practice to another. The user will test two outbound scenarios:

1. A patient being referred to another doctor (Referral Note template to be created and sent by user)
2. A patient not being referred, but requesting information to be sent to another doctor (Continuity of Care template to be created and sent by user)

To test the inbound process, the user will test a new, non-referred patient transitioning into the practice (receipt of a valid C-CDA Continuity of Care template). This transition will be used to demonstrate:

1. C-CDA file validation
2. Provision of a human-readable view
3. The ability of the user to set preferences regarding section display, order, and quantity. Further, the test process will demonstrate that those preferences are obeyed.

#### **Relied Upon Software**

Secure Exchange Solutions, SES Direct messaging service

#### **Care Setting**

Ambulatory office-based setting

#### **Conformance to Newer Standards Requirements**

None Applicable

## **(b)(1) – Transitions of Care continued...**

### **Testing Procedure**

#### **Send**

1. The user will create a new patient
2. The user will start an encounter with that patient and enter data for each element of the CCDS
3. Referral simulation: The user will enter the Referrals component of RevolutionEHR to generate and send a C-CDA Referral Note template to a clinician in another practice via Direct messaging.
4. Non-referral simulation: The user will select the Record Summary button on the patient dashboard and generate a C-CDA Continuity of Care template. The user will then enter the Messages module and send that document to another practice via Direct messaging.
5. The recipient will provide screenshots of both messages in the inbox confirming receipt

#### **Receive**

1. The user will receive a C-CDA Continuity of Care Document template from another practice via Direct messaging
2. The user will save the file to a patient record in the Documents/Images folder
3. The user will select the file and then the “Incorporate” button initiating RevolutionEHR’s validation process
4. The user will select “View Document” to view the human-readable document
5. The user will close the document, select their username in the upper right of the screen, and select “Edit Profile” to edit their C-CDA display preferences to the following:
  - a. “Hide” all data categories except Medications, Allergies, and Problems to set initial quantity of display
  - b. Move Medications, Allergies, Problems to the bottom of the list to set preferred order
6. The user will log out of RevolutionEHR and then log back in
7. The user will repeat step 3 and 4 and ensure that preferences have been maintained and obeyed

### **Expected Outcomes**

1. The user will successfully create, and the recipient will successfully receive valid C-CDAs using Continuity of Care and Referral Note templates
2. The user will successfully receive a C-CDA Continuity of Care template from another practice and save it to the patient record
3. The user will successfully view a human-readable version of the document
4. The user will successfully set the preferred order and initial quantity of sections and see those preferences applied

### **Measurement/Metric**

**Methodology:** EHR system logs will be reviewed to determine the frequency of send/receive use as well as validation of proper operation. These data points will be used for calculation of the error rate measurement. **Expectation:** The expectation is that providers will be able to successfully share EHI using Direct messaging. Error rates will be tracked over the testing period and trended.

### **Justification of Approach**

The defined approach reflects the real-world clinical scenarios and how RevolutionEHR’s send and receive capabilities would be used

## **(b)(2) – Clinical Information Reconciliation and Incorporation**

### **Methodology**

The aim of this criterion is to ensure that CEHRT can electronically process a valid inbound CCDA file and use the included information to build/update the patient record. A common situation where this occurs in practice is when one clinician refers a patient to another and provides associated documentation for continuity of care purposes.

Thus, the real-world test scenario will address that scenario: a user of one system will forward Continuity of Care Document and Referral Note files to our test user in a live production practice. The RevolutionEHR test user will then follow the processes required to achieve the schedule of key milestones below.

### **Care Setting**

Ambulatory office-based setting

### **Conformance to Newer Standards Requirements**

Non-Applicable

### **Testing Procedure**

1. Upon receipt of a TOC/referral summary in RevolutionEHR, the document can be properly matched to the correct patient
2. Once associated to the correct patient, the user will be able to view specific data categories from the inbound file simultaneously with data from the existing patient record. These categories of data are medications, medication allergies, and problem list
3. The user can create a single consolidated list of medications, medication allergies, and problems by removing and/or merging from either list in the simultaneous view
4. The user can review and confirm the final set of data to be incorporated into the patient record
5. Upon user confirmation, the final set of data is successfully incorporated into the appropriate areas of the patient record
6. The user will be able to create a Continuity of Care Document representing the updated patient record

### **Expected Outcomes**

1. A clinician will be able to receive C-CDA Continuity of Care Document and Referral Note files from another clinician and match it to a patient record
2. When valid files are received, the clinician will be able to simultaneously compare the data from the inbound file and the data in the patient record
3. The clinician can create a single list of medications, medication allergies, and problems
4. The clinician can add the updated lists to the appropriate areas of the patient record
5. The clinician can create a valid Continuity of Care document based on the updated patient record

### **Measurement/Metric**

Methodology: EHR system logs will be reviewed to determine the frequency of incorporation process utilization as well as validation of proper operation. These data points will be used for calculation of the error rate measurement. Expectation: The expectation is that providers will be able to receive and incorporate EHR. Error rates will be tracked over the testing period and trended.

### **Justification of Approach**

The defined approach reflects the real-world clinical scenario and how RevolutionEHR's incorporation capabilities would be used.



## **(b)(10) – Data Export**

### **Methodology**

The aim of this criterion is to ensure that CEHRT will allow a user to timely create an export file(s) of a single patient's data or a patient population of electronic health information stored at the time of the export. The single patient export will be accessible within the EHR application, and the patient population export can be formally requested through an outlined process. There will be a setting to limit the ability of users who can create export file(s), the setting will be part of the user role assignment and serve as an administrative function.

The real-world test plan for RevolutionEHR will ensure that each of the required capabilities are functional.

### **Care Setting**

Ambulatory office-based setting

### **Conformance to Newer Standards Requirements**

Non-Applicable

### **Testing Procedure**

#### **Single Patient Export**

1. An authorized user will successfully create a real-time export of a single patient
2. The user that requests the export will receive a success notification that the export is ready for view

#### **Patient Population Export**

1. An authorized user will successfully request real-time export of a single patient
2. The user that requests the export will receive a success notification that the export is ready for view

### **Expected Outcomes**

1. The authorized user will receive the resulting file from the real-time single patient export
2. The authorized user will receive the resulting files from the export of all patients

### **Measurement/Metric**

Methodology: EHR system logs will be reviewed to determine the frequency of data export utilization as well as validation of proper operation. These data points will be used for calculation of the error rate measurement.

Expectation: The expectation is that providers will be able to successfully export patient files as needed.

### **Justification of Approach**

The defined approach reflects the typical clinical utilization of the capability (single patient in real-time) and accounts for the required capabilities for a patient population export.

## **(b)(11) – Decision Support Interventions**

### **Methodology**

The aim of this criterion is to ensure that CEHRT will allow a user to use a set of DSIs which are tools that use data and AI to help them make clinical decisions.

### **Relied Upon Software**

Dynamic Health IT (DHIT) is our hosting provider for FHIR resource files

### **Care Setting**

Ambulatory office-based setting

### **Conformance to Newer Standards Requirements**

Non-Applicable

### **Testing Procedure**

#### **Evidence Based (Rules) Decision Support Interventions**

1. The user can set up new set source attributes on Clinical Decision Support queries in the Administration module.
2. The user can add or include the Implantable Device Unique Device Identifier (UDI) on a Clinical Decision Support Query.
3. The user can run a report for the Patient Trigger Outcome Interventions By Provider by importing the report criteria in the Custom Search for Patients in the Reporting module.
4. The user can run a report for the Patient Trigger Outcome Interventions By Patient by importing the report criteria in the Custom Search for Patients in the Reporting module.
- 5.

#### **Predictive (AI) Decision Support Interventions**

1. When an encounter is signed, a CCD document is automatically generated and sent to DHIT via FHIR.

### **Expected Outcomes**

#### **Evidence Based (Rules) Decision Support Interventions**

1. The user will see all the attributes configured in a modal when the CDS rule is triggered in an encounter.
2. When a patient has the implantable device UDI recorded in their Implantable Device screen, the Clinical Decision Support query which has the same UDI in the search criteria will display on the CDS screen within the patient's encounter.
3. When the report is run, the user will be able export the data to a CSV file.
4. When the report is run, the user will be able export the data to a CSV file.

#### **Predictive (AI) Decision Support Interventions**

1. Within DHIT, an authorized 3<sup>rd</sup> party application will process the provided data and then return the data outlined and available for the AI Interventions.
2. The user will be able to view this incoming data on the AI Interventions screen in the patient record.

**(b)(11) – Decision Support Interventions continued...**

**Measurement/Metric**

Methodology: EHR system logs will be reviewed to determine the frequency of data export utilization as well as validation of proper operation. These data points will be used for calculation of the error rate measurement.  
Expectation: The expectation is that providers will be able to successfully export patient files as needed.

**Justification of Approach**

The defined approach reflects the typical clinical utilization of the capability (single patient in real-time) and accounts for the required capabilities for a patient population export.

## **(c)(1) – Clinical Quality Measures – Record and Export**

### **Methodology**

The aim of this criterion is to ensure that CEHRT allows a user to export QRDA1 files at any time and without developer assistance. This allows the user to study the data for quality improvement and/or report it to federal, state, or private programs. The most likely clinical scenario in the present day is a user exporting files for manual submission to a clinical data registry.

To test this scenario, a user will trigger counts for each of the electronic clinical quality measures (eCQMs) included in RevolutionEHR's certification. This will be confirmed using the Clinical Quality Measures scorecard in RevolutionEHR. A request for QRDA1 files will be initiated with the resulting export being verified for consistency with expectations.

### **Care Setting**

Ambulatory office-based setting

### **Conformance to Newer Standards Requirements**

Non-Applicable

### **Testing Procedure**

1. Over the collection period, the user will trigger eCQM counts for each of the 7 measures tracked by RevolutionEHR on the Clinical Quality Measures scorecard
2. The user will capture a screenshot of the Clinical Quality Measures scorecard at the end of each collection period
3. The user will export QRDA1 files from Clinical Quality Measures scorecard at end of each collection period
4. The user will receive requested files in Messages module
5. The user will verify contents to ensure a file is received for each measure

### **Expected Outcomes**

1. The user will receive QRDA1 files matching the patients and performance displayed on the Clinical Quality Measures scorecard

### **Measurement/Metric**

Methodology: Providers/users will submit the QRDA1 file export and scorecard screenshot at specified intervals. These data points will be used for calculation of the error rate measurement.

Expectation: The expectation is that providers will be able to export a QRDA1 file for each patient included in each of the measures from the Clinical Quality Measures scorecard in RevolutionEHR. Error rates will be tracked over the testing period and trended.

### **Justification of Approach**

The defined approach reflects the typical clinical utilization of QRDA1 files (request of files for use outside of RevolutionEHR).

## **(c)(2) – Clinical Quality Measures – Import and Calculate**

### **Methodology**

The aim of this criterion is to ensure that CEHRT can:

1. Import QRDA1 files
2. Using the imported data, calculate the measures to which the system is certified
3. Export a valid and accurate QRDA3 file representing the imported data

To test this scenario, a user will receive QRDA1 files from another practice, import them into RevolutionEHR, and then export a QRDA3 file of the resulting electronic clinical quality measure (eCQM) calculations.

### **Care Setting**

Ambulatory office-based setting

### **Conformance to Newer Standards Requirements**

Non-applicable

### **Testing Procedure**

1. The user will receive QRDA1 files AND a screenshot of the scorecard from which they were generated from another clinician
2. The user will import the QRDA1 files into RevolutionEHR
3. The user will capture a screenshot of the scorecard
4. The user will export a QRDA3 file based on that data
5. The QRDA3 file will be inspected to determine measure scores and compare that information to the screenshot of the generating scorecard

### **Expected Outcomes**

1. QRDA1 files can be imported into RevolutionEHR successfully
2. A QRDA3 file of the resulting data can be successfully exported from RevolutionEHR
3. The QRDA3 measure calculations, upon visual inspection, match those shown in the screenshot from the sender

### **Measurement/Metric**

Methodology: Providers/users will submit the QRDA3 file export and scorecard screenshots at specified intervals. These data points will be used for calculation of the error rate measurement.

Expectation: The expectation is that providers will be able to import QRDA1 files, see those files scored, and then request and receive a QRDA3 file of those results. Error rates will be tracked over the testing period and trended.

### **Justification of Approach**

The defined approach reflects the expected utilization of QRDA1 import capabilities.

## **(c)(3) – Clinical Quality Measures – Report**

### **Methodology**

The aim of this criterion is to ensure that CEHRT can create valid QRDA1 and QRDA3 files. Since (c)(1) and (c)(2) require generation and validation of these files, the certification process allows those same files to be used to meet the requirements of this criterion.

### **Care Setting**

Ambulatory office-based setting

### **Conformance to Newer Standards Requirements**

Non-applicable

### **Testing Procedure**

1. The QRDA1 files from (c)(1) RWT scenario will be utilized for this criterion
2. The QRDA3 files from (c)(2) RWT scenario will be utilized for this criterion

### **Expected Outcomes**

1. All QRDA1 and QRDA3 files submitted match expectations and comparisons to reference scorecards

### **Measurement/Metric**

Methodology: Data points from the RWT plan for (c)(1) and (c)(2) will be used for calculation of the error rate measurement.

Expectation: The expectation is that all QRDA1 and QRDA3 files submitted match expectations and comparisons to reference scorecards. Error rates will be tracked over the testing period and trended.

### **Justification of Approach**

This specific criterion does not test a specific clinical scenario, but rather the validity of files produced by RevolutionEHR. Since (c)(1) and (c)(2) involve clinical scenarios and produce QRDA1 and QRDA3 files respectively, those files will be used for the testing for this criterion. This allows the real-world testing of (c)(3) to resemble a real-world scenario as closely as possible.

## **(e)(1) – View, Download, and Transmit to 3<sup>rd</sup> Party**

### **Methodology**

The aim of this criterion is to promote patient and family engagement in care by allowing health information to be viewed, downloaded, and transmitted via a personal health record or patient portal. Additionally, transmission should be allowed via Direct messaging or standard e-mail based on the portal user's preference. Finally, actions taken within the portal should be viewable to the user through an activity/audit log.

For this test scenario, patients will be created in RevolutionEHR, encounters started, and have records built to contain data for all elements of the Common Clinical Data Set (CCDS). The associated patients will be provided access to their personal health record, RevolutionPHR. The patients will log into the PHR using the credentials and perform the required actions. Transmission by both Direct messaging and standard e-mail will be confirmed.

### **Relied Upon Software**

Secure Exchange Solutions, SES Direct messaging service

### **Care Setting**

Ambulatory office-based setting

### **Conformance to Newer Standards Requirements**

Non-applicable

### **Testing Procedure**

1. The user will create/update patients in RevolutionEHR and establish personal health record credentials
2. The user will document the encounter and update the record to include data points for each element of the CCDS
3. The patients, using the credentials created in step 1, will log into the personal health record
4. The patients will "View" the health information from the encounter created in step 2
5. The patients will "Download" the health information from the encounter created in step 2.
6. The patients will "Transmit" the health information from the encounter created in step 2 to both a Direct address and standard email address.
7. The recipients of the transmission(s) will provide a screenshot of the message in their inbox confirming receipt
8. The patients will review the access log in the personal health record

### **Expected Outcomes**

1. The patients can successfully log into their personal health record
2. The patients can successfully view health information associated to the encounter
3. The patients can successfully download health information associated to the encounter
4. The patients can successfully transmit to a third-party health information associated to the encounter
5. The data for each action can be appropriately filtered based on the specified date range
6. Health information transmitted to a third-party by Direct messaging and standard e-mail is received by intended recipient
7. View, download, and transmit actions taken within the personal health record are recorded in the access log

### **Measurement/Metric**

Methodology: EHR system logs will be reviewed to determine the frequency of view, download, and transmit process utilization as well as validation of proper operation. These data points will be used for calculation of the error rate measurement.

**(e)(1) – View, Download, and Transmit to 3<sup>rd</sup> Party continued..**

Expectation: The expectation is that information can be viewed by patients, downloaded by patients, and sent via Direct messaging and standard e-mail to recipients. Error rates will be tracked over the testing period and trended.

**Justification of Approach**

The defined approach reflects the expected real-world utilization of the view, download, and transmit capabilities of RevolutionEHR.



## **(g)(7) – Application Access – Patient Selection**

### **Methodology**

The aim of the criteria in the (c) series is to ensure that CEHRT provides access to the Common Clinical Data Set of a specific patient via an application programming interface (API). Through this API, third parties could build applications that, as an example, allow patients to aggregate data from multiple clinicians rather than require them to log into their personal health record with each clinician. With respect to this individual criterion, the expectation is that the CEHRT, when presented with sufficient information to uniquely identify the patient, will return an ID or token that the third-party application can use to execute requests for that patient's data.

### **Relied Upon Software**

Dynamic Health IT (DHIT) is our hosting provider for FHIR resource files

### **Care Setting**

Ambulatory office-based setting

### **Conformance to Newer Standards Requirements**

Non-applicable

### **Testing Procedure**

1. The user will create a new patient in RevolutionEHR and establish personal health record credentials
2. The patient and/or provider will access the FHIR API either directly or through an app
3. DHIT will generate a token for the application
4. The token from DHIT for the patient will be used by the patient and/or provider to successfully authorize the connection between the third-party application and the API

### **Expected Outcomes**

1. The patient and/or provider successfully access the FHIR API
2. The patient and/or provider successfully generates a token in DHIT
3. The patient and/or provider successfully connects the third-party application to the API using the token

### **Measurement/Metric**

Methodology: EHR system logs will be reviewed to determine the frequency of API connection as well as validation of proper operation. These data points will be used for calculation of the error rate measurement.

Expectation: Connecting the third-party application to the API (i.e., no access errors) and confirming the ability to access specific patients will equal success. Error rates will be tracked over the testing period and trended.

### **Justification of Approach**

The defined approach reflects the real-world steps needed for a patient to utilize a third-party application to access their clinical data via API. As such, it is an appropriate test of these capabilities.

## **(g)(9) – Application Access – All Data Request**

### **Methodology**

The aim of the criteria in the (c) series is to ensure that CEHRT provides access to the Common Clinical Data Set (CCDS) of a specific patient via an application programming interface (API). Through this API, third parties could build applications that, as an example, allow patients to aggregate data from multiple clinicians rather than require them to log into their personal health record with each clinician. With respect to this individual criterion, the expectation is that the CEHRT, when presented with sufficient information to uniquely identify the patient, will respond to requests for patient data from all categories specified in the CCDS and do so for a specific date or date range. From a real-world testing standpoint, once a patient has authorized the application and it has successfully connected via the API, the patient can request data from all elements of the CCDS in a single response. This test scenario will confirm that the patient has that ability and that the request is fulfilled successfully.

### **Relied Upon Software**

Dynamic Health IT (DHIT) is our hosting provider for FHIR resource files

### **Care Setting**

Ambulatory office-based setting

### **Conformance to Newer Standards Requirements**

Non-applicable

### **Testing Procedure**

1. The user will create/update patients in RevolutionEHR and establish personal health record credentials
2. The user will start encounters with patients and update the records to include data points for each element of the CCDS
3. The patient and/or provider will access the FHIR API either directly or through an app
4. DHIT will generate a token for the application
5. The token from DHIT for the patient will be used by the patient and/or provider to successfully authorize the connection between the third-party application and the API

### **Expected Outcomes**

1. The patient and/or provider successfully access the FHIR API
2. The patient and/or provider successfully generates a token in DHIT
3. The patient and/or provider successfully connects the third-party application to the API using the token

### **Measurement/Metric**

Methodology: EHR system logs will be reviewed to determine the frequency of API connection as well as validation of proper data returns. These data points will be used for calculation of the error rate measurement.

Expectation: Connecting the third-party application to the API (i.e., no access errors) and confirming the return of all data categories for the patient will equal success. Error rates will be tracked over the testing period and trended.

### **Justification of Approach**

The defined approach reflects the real-world steps needed for a patient to authorize and use a third-party application to access specific elements of their clinical data via API. As such, it is an appropriate test of these capabilities.

## **(g)(10) – Standardized API for Patient and Population Services**

### **Methodology**

The aim of this criteria is to ensure that CEHRT provides access to the Common Clinical Data Set (CCDS) of a specific patient via an application programming interface (API). Through this API, third parties could build applications that, as an example, allow patients to aggregate data from multiple clinicians rather than require them to log into their personal health record with each clinician. We have chosen to use FHIR resource API as our API method.

### **Relied Upon Software**

Dynamic Health IT (DHIT) is our hosting provider for FHIR resource files

### **Care Setting**

Ambulatory office-based setting

### **Conformance to Newer Standards Requirements**

Non-applicable

### **Testing Procedure**

1. When an encounter is signed, a CCDA document is automatically generated and sent to DHIT via FHIR

### **Expected Outcomes**

1. Once a third party application has integrated with DHIT, and a patient has authorized that application to retrieve their data, the patient can request data from all elements of the CCDS in a single response.

### **Measurement/Metric**

Methodology: EHR system logs will be reviewed for validation of proper operation. These data points will be used for calculation of the error rate measurement.

Expectation: The expectation is that files will be sent successfully to DHIT.

### **Justification of Approach**

The defined approach reflects the real-world steps needed for a patient to authorize and use a third-party application to access specific elements of their clinical data via FHIR. As such, it is an appropriate test of these capabilities.

## **(h)(1) – Direct Project**

### **Methodology**

The aim of this criterion is to ensure that the CEHRT includes the capability to send and receive information according to the Applicability Statement for Secure Health Transport, version 1.2 otherwise referred to as the Direct Protocol. RevolutionEHR features Direct capabilities directly within the software's Messages module. As such, this test scenario will use the Messages module to both send and receive Direct messages with C-CDA payloads.

### **Relied Upon Software**

Secure Exchange Solutions, SES Direct messaging service

### **Care Setting**

Ambulatory office-based setting

### **Conformance to Newer Standards Requirements**

Non-applicable

### **Testing Procedure**

#### **Send**

1. The user will create a C-CDA in .xml format for the patient
2. The user will ensure that the intended exchange partner is listed in Admin > Vendors/Partners > External Providers and has a Direct address in their profile
3. The user will open the Messages module, create a new message, select the exchange partner in the "To" field, attach the C-CDA created in step 1, and send the message
4. The recipient will confirm receipt

#### **Receive**

1. The exchange partner will create a C-CDA in .xml format for a test patient
2. The exchange partner will create a Direct message, address it to the RevolutionEHR user, attach the C-CDA created in previous step, and send the message

### **Expected Outcomes**

1. The user will be able to successfully send a message with C-CDA payload
2. The exchange recipient will receive the message from the user
3. The user will be able to successfully receive a message with C-CDA payload

### **Measurement/Metric**

Methodology: EHR system logs will be reviewed to determine frequency of use and validate the proper operation of transport mechanisms. These data points will be used for calculation of the error rate measurement.

Expectation: Success will be determined through the user's ability to both send and receive Direct messages with C- CDAs attached. Any deviation from that will be considered an inconsistency. Error rates will be tracked over the testing period and trended.

### **Justification of Approach**

The defined approach reflects the real-world steps needed for a user to both send and receive health information via the Direct protocol in RevolutionEHR. As such, it is an appropriate test of these capabilities.

### Attestation

Authorized Representative Name: Krista Renner

Authorized Representative Email: [krenner@revolutionehr.com](mailto:krenner@revolutionehr.com)

Authorized Representative Phone: 619-528-0040

Authorized Representative Signature:



Date: October 29, 2024