2023 Real-World Test Plan

Developer: Health Innovation Technologies, Inc
Product: RevolutionEHR
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revolutionEHR
freedom to focus

Document History

Version	Date	Author	Changes
1.0	September 19, 2022	JB	Finalized initial plan
2.0	October 6, 2022	BJ	Added Relied Upon Software to (b)(1),(e)(1), and (h)(1)

Table of Contents

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.

Standards Update Timeline

- USCDI Updates for (b)(1), (b)(2), (e)(1), and (g)(9)
    - RevolutionEHR does not anticipate updating to the full United States Core Data for Interoperability (USCDI) prior to August 31, 2022. In turn, the updates will not be part of the 2022 test plan.
    - Expected implementation: 4th quarter of 2022
- (b)(10) - Electronic Health Information Export
    - RevolutionEHR does not anticipate implementing (b)(10) - Electronic Health Information Export in 2022. In turn, this will not be part of the 2022 plan.
    - Expected Implementation: prior to the deadline of December 2023
- (g)(10) - Standardized API for Patient and Population Services
    - RevolutionEHR does not anticipate implementing (g)(10) - Standardized API for Patient and Population Services prior to August 31, 2022. In turn, this will not be part of the 2022 test plan.
    - Expected Implementation: 4th quarter of 2022
- C-CDA Companion Guide Updates for (b)(1), (b)(2), (e)(1), and (g)(9)
    - RevolutionEHR does not anticipate implementing the C-CDA Companion Guide updates prior to August 31, 2022. In turn, the updates will not be part of the 2022 test plan.
    - Expected Implementation: prior to the deadline of December 2022

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

Full USCDI and C-CDA Companion Guide Updates will not be implemented in advance of August 31, 2022. As such, this test plan will not address how RevolutionEHR will test and demonstrate conformance to requirements of the criterion using updated standards.

Schedule of Key Milestones

Key Milestone	Date/Timeframe
Identify providers to perform RWT	January 2023
Review testing procedures with providers	February 2023
Data collection and review	Quarterly 2023

Final collection of data / End of RWT	December 2023
Data analysis and RWT report creation	January 2024
Submission of RWT report to Drummond	February 2024

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

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Schedule of Key Milestones

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Final collection of data / End of RWT	December 2023
Data analysis and RWT report creation	January 2024
Submission of RWT report to Drummond	February 2024

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)(6) – Data Export

Methodology

The aim of this criterion is to ensure that CEHRT can export clinical data for use in a different health information technology or a third-party system for the purpose of the clinician's choosing. The requirement specifies that the user must be able to export data for one patient, a set of patients, or a subset of that set of patients. Additionally, the export must be able to be executed immediately, at a scheduled date and time, or set to be recurring. Finally, the requirement specifies that a date range can be set by the user with that range then used to determine the data within the files.

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

Not applicable as (b)(6) is a time-limited criterion

Schedule of Key Milestones

Key Milestone	Date/Timeframe
Identify providers to perform RWT	January 2023
Review testing procedures with providers	February 2023
Data collection and review	Quarterly 2023
Final collection of data / End of RWT	December 2023
Data analysis and RWT report creation	January 2024
Submission of RWT report to Drummond	February 2024

Testing Procedure

1. An authorized user will successfully create a real-time export of a single patient
2. An authorized user will successfully schedule an export of all patients with last names starting with "Q" to be executed each evening at midnight
3. An authorized user will schedule an export of all patients to be executed on the next Saturday evening at midnight

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 scheduled export of all patients with last names starting with "Q" and confirm that it is recurring
3. The authorized user will receive the resulting files from the scheduled 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 share EHI using the export function. Error rates will be tracked over the testing period and trended.

Justification of Approach

The defined approach reflects the typical clinical utilization of the capability (single patient in real-time) and accounts for the two other required capabilities (subset of patients on relative date and time, and all patients on a specific date and time).

(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

Not applicable

Schedule of Key Milestones

Key Milestone	Date/Timeframe
Identify providers to perform RWT	January 2023
Review testing procedures with providers	February 2023
Data collection and review	Quarterly 2023
Final collection of data / End of RWT	December 2023
Data analysis and RWT report creation	January 2024
Submission of RWT report to Drummond	February 2024

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

Not applicable

Schedule of Key Milestones

Key Milestone	Date/Timeframe
Identify providers to perform RWT	January 2023
Review testing procedures with providers	February 2023
Data collection and review	Quarterly 2023
Final collection of data / End of RWT	December 2023
Data analysis and RWT report creation	January 2024
Submission of RWT report to Drummond	February 2024

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

Not applicable

Schedule of Key Milestones

Key Milestone	Date/Timeframe
Identify providers to perform RWT	January 2023
Review testing procedures with providers	February 2023
Data collection and review	Quarterly 2023
Final collection of data / End of RWT	December 2023
Data analysis and RWT report creation	January 2024
Submission of RWT report to Drummond	February 2024

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 3rd 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

Full USCDI and C-CDA Companion Guide Updates will not be implemented in advance of August 31, 2022. As such, this test plan will not address how RevolutionEHR will test and demonstrate conformance to requirements of the criterion using updated standards.

Schedule of Key Milestones

Key Milestone	Date/Timeframe
Identify providers to perform RWT	January 2023
Review testing procedures with providers	February 2023
Data collection and review	Quarterly 2023
Final collection of data / End of RWT	December 2023
Data analysis and RWT report creation	January 2024
Submission of RWT report to Drummond	February 2024

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.
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.

In RevolutionEHR, the ability of a patient to access their data depends on two things:

1. the practice to which the patient is associated authorizing the third-party application thereby producing credentials (username and password); and
2. the patient to produce a token for the application from their personal health record

The real-world test scenario will confirm that both actions are possible and result in the patient being able to access their data through the third-party application.

Care Setting

Ambulatory office-based setting

Conformance to Newer Standards Requirements

Not applicable

Schedule of Key Milestones

Key Milestone	Date/Timeframe
Identify providers to perform RWT	January 2023
Review testing procedures with providers	February 2023
Data collection and review	Quarterly 2023
Final collection of data / End of RWT	December 2023
Data analysis and RWT report creation	January 2024
Submission of RWT report to Drummond	February 2024

Testing Procedure

1. The user will create a new patient in RevolutionEHR and establish personal health record credentials
2. The practice will authorize the third-party application to obtain access credentials
3. The patient will generate a token for the test application from their personal health record
4. The access credentials from the practice and the token from the personal health record of the patient will be used by the patient to successfully authorize the connection between the third-party application and the API

Expected Outcomes

1. The practice successfully authorizes the third-party application and receives access credentials
2. The patient successfully generates a token in their personal health record
3. The patient successfully connects the third-party application to the API using the access credentials, token, and their last name

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)(8) – Application Access – Data Category 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 specific categories 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 access/request specific elements of data. This test scenario will confirm that the patient has that ability.

Care Setting

Ambulatory office-based setting

Conformance to Newer Standards Requirements

Not applicable as (g)(8) is a time-limited criterion and (g)(10) will not be implemented in advance of August 31, 2022.

Schedule of Key Milestones

Key Milestone	Date/Timeframe
Identify providers to perform RWT	January 2023
Review testing procedures with providers	February 2023
Data collection and review	Quarterly 2023
Final collection of data / End of RWT	December 2023
Data analysis and RWT report creation	January 2024
Submission of RWT report to Drummond	February 2024

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 practice will authorize the third-party application to obtain access credentials
4. The patient will generate a token for the third-party application from their personal health record
5. The access credentials from the practice and the token from the personal health record of the patient will be used to successfully authorize the connection between the third-party application and the API
6. The patient will request each of the available elements of the CCDS

Expected Outcomes

1. The practice successfully authorizes the third-party application and receives access credentials
2. The patient successfully generates a token in their personal health record
3. The patient successfully connects the third-party application to the API using the access credentials, token, and their last name
4. The patient requests data from each category of the CCDS and successfully receives a computable file for each request
5. The data returned through each request is appropriately filtered based on the specified date range

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 specific 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)(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.

Care Setting

Ambulatory office-based setting

Conformance to Newer Standards Requirements

Full USCDI and C-CDA Companion Guide Updates will not be implemented in advance of August 31, 2022. As such, this test plan will not address how RevolutionEHR will test and demonstrate conformance to requirements of the criterion using updated standards.

Schedule of Key Milestones

Key Milestone	Date/Timeframe
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Final collection of data / End of RWT	December 2023
Data analysis and RWT report creation	January 2024
Submission of RWT report to Drummond	February 2024

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 practice will authorize the third-party application to obtain access credentials
4. The patient will generate a token for the third-party application from their personal health record
5. The access credentials from the practice and the token from the personal health record of the patient will be used to successfully authorize the connection between the third-party application and the API
6. The patient will request all data elements of the CCDS in a single response

Expected Outcomes

1. The practice successfully authorizes the test application and receives access credentials
2. The patient successfully generates a token in their personal health record
3. The patient successfully connects the test application to the API using the access credentials, token, and their last name
4. The patient requests data from all categories of the CCDS in a single response and successfully receives a single computable file of the requested information

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.

(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

Not applicable

Schedule of Key Milestones

Key Milestone	Date/Timeframe
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Submission of RWT report to Drummond	February 2024

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

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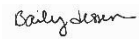
Authorized Representative Signature: 

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