2022 Real-World Test Plan

Developer: Integrated Practice Solutions, Inc
Product: Chirotouch
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Developer Real World Test Page URL: https://www.chirotouch.com/onc-health-it/

Document History

Version	Date	Author	Changes
1.0	November 05, 2021	SN	Finalized initial plan

Table of Contents

Care and Practice Setting

Chirotouch version 7.0 is designed for chiropractic professionals delivering care in an ambulatory setting.

Approach and Justification

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

Standards Update Timeline

- USCDI Updates for (b)(1), (b)(2), (e)(1), and (g)(9)
    - Chirotouch does not anticipate updating to the 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: late 2022
- (b)(10) - Electronic Health Information Export
    - Chirotouch 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
    - Chirotouch 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) ○
    - Chirotouch 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

Chirotouch's real-world test scenario will simulate the movement of a patient from one practice to another. Chirotouch 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, Chirotouch will simulate 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.

Care Setting

Ambulatory office-based setting

Conformance to Newer Standards Requirements

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 Chirotouch 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 2022
Review testing procedures with providers	February 2022
Data collection and review	Quarterly 2022
Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

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 Messages component of Chirotouch to generate and send a C-CDA to a clinician in another practice via Direct messaging.

4. Non-referral simulation. The user will enter the Messages component of Chirotouch to generate and send a C-CDA to a clinician in 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 select “View” in the Messages Inbox to view the human-readable document
3. The user will close the document
4. The user will select the Dynamic CCDA viewer option in the Messages application
   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
5. The user will log out of Chirotouch and then log back in
6. The user will repeat step 5 and verify the changes have been kept

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 typical clinical scenarios and how the 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 simulate 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. Our 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

Key Milestone	Date/Timeframe
Identify providers to perform RWT	January 2022
Review testing procedures with providers	February 2022
Data collection and review	Quarterly 2022
Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

Testing Procedure

1. Upon receipt of a TOC/referral summary in Chirotouch, 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 file 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 typical clinical scenario where this capability 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 Chirotouch will ensure that each of the required capabilities is present. Specifically, our practice will set a date range of year-to-date and:

1. Create a real-time export of a single patient
2. Schedule an export of all patients with last names starting with "A" to be executed at noon the next day
3. Schedule an export of all patients to be executed on the next day at midnight

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 2022
Review testing procedures with providers	February 2022
Data collection and review	Quarterly 2022
Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

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 "A" to be executed at noon the next day
3. An authorized user will schedule an export of all patients to be executed on the next day 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 "A" 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) – Record and Export

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 eCQMs included in Chirotouch's certification. This will be done for two patients and confirmed using the Clinical Quality Measures scorecard in Chirotouch. A request for QRDA1 files will then be initiated with the resulting export being verified for consistency with expectations (i.e. two files for each measure, one for each patient).

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 2022
Review testing procedures with providers	February 2022
Data collection and review	Quarterly 2022
Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

Testing Procedure

1. The user will create two new patients
2. The user will start encounters with each patient and trigger eCQM counts for each of the 3 measures tracked by Chirotouch on the Clinical Quality Measures scorecard
3. The user will export QRDA1 files from Clinical Quality Measures scorecard
4. The user will view the files from the CQM dashboard
5. The user will verify contents to ensure a file for each patient 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 Chirotouch. 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 (request of files for use outside of Chirotouch).

(c)(2) – Import and Calculate

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. 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 Chirotouch, and then export a QRDA3 file of the resulting eCQM calculations. The QRDA3 file will then be validated for format with the Cypress Test Tool and visually inspected for measure calculation accuracy.

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 2022
Review testing procedures with providers	February 2022
Data collection and review	Quarterly 2022
Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

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 Chirotouch
3. The user will export a QRDA3 file based on that data
4. The user will validate QRDA3 file format using the Cypress Test Tool
5. The user will visually inspect the QRDA3 file to determine measure scores and compare that information to the screenshot of the generating scorecard

Expected Outcomes

1. QRDA1 files can be imported into Chirotouch successfully
2. A QRDA3 file of the resulting data can be successfully exported from Chirotouch
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 the capability.

(c)(3)- Report

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. As such, this test scenario will utilize the resulting files from the (c)(1) and (c)(2) real-world test process and the Cypress Test Tool to demonstrate compliance.

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 2022
Review testing procedures with providers	February 2022
Data collection and review	Quarterly 2022
Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

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 Chirotouch. 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, a patient will be created in Chirotouch, an encounter started, and have a record built to contain data for all elements of the Common Clinical Data Set (CCDS). The patient will be provided access to their personal health record, Chirotouch. The tester will log into the Patient Portal using the patient's credentials and perform the required actions.

Care Setting

Ambulatory office-based setting

Conformance to Newer Standards Requirements

USCDI and C-CDA Companion Guide Updates will not be implemented in advance of August 31, 2021. As such, this test plan will not address how Chirotouch 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 2022
Review testing procedures with providers	February 2022
Data collection and review	Quarterly 2022
Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

Testing Procedure

1. The user will create a new patient in Chirotouch and establish patient portal credentials
2. The user will start one encounter with the new patient and update the record to include data points for each element of the CCDS and send to the patient portal
3. The user act as the patient and, using the credentials created in step 1, log into the patient portal
4. The user will "View" the health information from the encounter created in step 2
5. The user will "Download" the health information from the encounter created in step 2. The .xml file associated with this download will be tested in the One-Click C-CDA Scorecard.
6. The user will "Transmit" the health information from the encounter created in step 2 to both a Direct address and standard email address. The .xml files associated with both transmissions will be tested in the One-Click C-CDA Scorecard.
7. The recipient will provide a screenshot of the message in their inbox confirming receipt. The user will review the access log in the personal health record

Expected Outcomes

1. The user can successfully log into the personal health record of the patient
2. The user can successfully view health information associated to the encounter
3. The user can successfully download health information associated to the encounter
4. The user can successfully transmit to a third-party health information associated to the encounter
5. The data for each action is 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 associated capabilities.

(f)(3) Transmission to Public Health Agencies – Reportable laboratory test and values/results

Methodology

The aim of this criterion is to enable the application to be able to transmit laboratory orders electronically and receive in electronically the values/results from those orders

For this test scenario, a patient will be created in Chirotouch, an encounter started. The tester will create a laboratory order and transmit the order through the application. The lab will send back the results and they will be viewed with in the application

Care Setting

Ambulatory office-based setting

Conformance to Newer Standards Requirements

USCDI and C-CDA Companion Guide Updates will not be implemented in advance of August 31, 2021. As such, this test plan will not address how Chirotouch 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 2022
Review testing procedures with providers	February 2022
Data collection and review	Quarterly 2022
Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

Testing Procedure

1. The user will create a new patient in Chirotouch.
2. The user will create a new encounter with the patient and complete the encounter.
3. The user will access the patient account in the patient's application and open the CPOE tab.
4. The user will create a new lab order for the patient.
5. Once the results have been received, the recipient will provide a screenshot of the lab order with associated results.

Expected Outcomes

1. The user can successfully create a lab order for the patient
2. The user can successfully receive a lab value/result for the patient
3. The user can successfully view the order with associated values/results within the application.

Measurement/Metric

Methodology: Providers/users will submit the HL7 file export, import and screenshot at specified intervals. These data points will be used for calculation of the error rate measurement.

Expectation: The expectation is that information can be viewed by users. 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 associated capabilities.

(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.

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 2022
Review testing procedures with providers	February 2022
Data collection and review	Quarterly 2022
Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

Testing Procedure

1. The user will create a new patient in Chirotouch
2. The user will check the Send to FHIR option in the patient application
3. The user will create an appointment and check them out
4. The practice will authorize the application to obtain access credentials
5. The patient will generate a login information for the API from their Patients application
6. The login information will be used to register the patient for FHIR Access

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

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 each of the categories specified in the CCDS and do so with regard to 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. In order to visualize the actual API calls and ensure that the required capabilities are present.

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, 2021.

Schedule of Key Milestones

Key Milestone	Date/Timeframe
Identify providers to perform RWT	January 2022
Review testing procedures with providers	February 2022
Data collection and review	Quarterly 2022
Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

Testing Procedure

1. The user will create/update patients in Chirotouch 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 with regard to 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. In order to visualize the actual API calls and ensure that the required capabilities are present.

Care Setting

Ambulatory office-based setting

Conformance to Newer Standards Requirements

USCDI and C-CDA Companion Guide Updates will not be implemented in advance of August 31, 2021. As such, this test plan will not address how Chirotouch will test and demonstrate conformance to requirements of the criterion using updated standards.

Schedule of Key Milestones

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Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

Testing Procedure

1. The user will create/update patients in Chirotouch 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 all 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. Chirotouch 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.

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 2022
Review testing procedures with providers	February 2022
Data collection and review	Quarterly 2022
Final collection of data / End of RWT	December 2022
Data analysis and RWT report creation	January 2023
Submission of RWT report to Drummond	February 2023

Testing Procedure

Send

1. The user will create a C-CDA in .xml format for the test patient
2. The user will open the Messages module, create a new direct message, select the partner in the "To" field, attach the C-CDA created in step 1, and send the message
3. The recipient will provide a screenshot of the message in their inbox confirming 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 Chirotouch 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 Chirotouch. As such, it is an appropriate test of these capabilities.

Attestation

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