REAL WORLD TESTING: 2025 TEST PLAN

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Better Information, Better Outcomes

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Overview

Real World Testing is an annual requirement outlined in the ONC 21st Century Cures Act Final Rule for all health IT developers participating in the ONC Health IT Certification Program. Real World Testing verifies that deployed Certified Health IT continues to perform as intended by conducting and measuring observations of interoperability and data exchange.

The applicable Real World Testing certification criteria including in this testing effort:

- (b)(1) Transitions of care
- (b)(2) Clinical information reconciliation and incorporation
- (b)(3) Electronic prescribing
- (b)(10) Electronic Health Information export
- (c)(1)—record and export
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- (h)(1) Direct Project

Plan Elements

Description of the elements include in the test plan for the certification criteria:

- **Testing Methodology/Method:** describes the steps and conditions will use to evaluate the functionality of the certification criteria.

- **Care/Practice Settings:** describes the type of settings in which the certification criteria are tested. MedicusEHR is a product designed to be used in an ambulatory care setting.
- **Metric Definition:** Describes the measurement used to determine the usage of the criteria
- **Milestones:** Describes the milestones to evaluate the progress in achieving the expected outcome of each certification criterion.
- **Expected Outcome:** Describes the result of successfully completing the test case.
- **Justification**: description of the reasoning for the specified test approach used
- **Relied Upon Software:** describes additional software(third-party) that is not developed by MedicusEHR

Product Information

Developer Info	Medicus Clinical LLC 36 corporate Office Park 20 Rd, Assertus Building Ste 104, Guaynabo, PR 00966 (787)622-2202 www.assertus.com
Product name and Version number	MEDICUSEHR V1.0
CHPL ID	15.04.04.3057.Medi.01.00.1.191113
Care Setting	This Real World Testing plan applies to ambulatory care settings
MedicusEHR RWT Plan	https://portal.assertus.com/en/medicus-ehr-2/

Standards Updates

All criteria listed in this test plan follow the standards referenced in the 2015 Edition Cures Update.

Test Plan

CARE COORDINATION:

(b)(1) Transitions of Care

(b)(2) Clinical information reconciliation and incorporation

(h)(1) Direct Project

Measure Description: Send and receive Transition of Care (TOC) messages with other providers to close the referral loop. The patient's ePHI will be exchanged using a C-CDA 2.1 Care Referral or Referral Note and DIRECT secure messaging for data transport.

Testing Methodology/Method:

- HISP via Direct Protocol (SMTP)
- HIE exchange
- HTTPS via secure provider portal

Metric Definition:

All providers with MedicusEHR account have the capability to create and send Transition of Care, with internal logs during RWT, will be identify and analyzed:

- Amount of TOC C-CDAs successfully sent
- Amount of TOC C-CDAs successfully received

Care/Practice Setting: Ambulatory care setting is the most common one for MEDICUSEHR users. Many belong to specialties such as eye care, chiropractic and behavioral health. We don't specifically market to specialty areas, so this test plan will measure data from all settings in which the MedicusEHR is used.

Milestones: January 2025- December 2025 (data collected monthly)

Expected Outcomes:

- Confirm ability to send and receive clinical documents
- Confirm with TP that production data will be used, whether in an actual live environment or a copy of a live environment
- CCDS data elements captured in EHR (system under test)
- Care provider signs progress note which triggers CCD 2.1 creation.
- From progress note or chronology area, care provider selects Referrals > New Referral and searches the address book for a provider, can manually add provider's Direct address if not present, then sends referral

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- Care provider receives external email confirmation that referral was sent
- Recipient uses scorecard to grade CCD
- Care provider selects recipient from directory of Direct addresses and initiates sending of Clinical Document.
- Tester uses Messages Inbox to locate Clinical Document.
- Care provider selects the CCD, chooses Incorporate, and searches for the correct patient to assign
- In the patient's chart, the care provider selects Last Received CCD then Reconcile.
- The care provider reviews the record, and merges the patient's problems, medications, and medication allergies into the system under test with no duplicates

Justifications:

- We chose to concentrate on the aspects of this criterion that would:
- Showcase MEDICUS's streamlined approach to provider-to-provider patient referrals and transitions of care with the goal being higher quality patient care
- Eliminate as much risk of data entry errors as possible by transmitting patient data securely and electronically rather than relying on manual data entry for referrals
- Reduce the overall time burden of manual data entry
- Ensure private and secure transmission of patients' PHI
- Result in increased interoperability between disparate HIT systems

Relied Upon Software:

- The resulting patient record will be exported in CCDA R2.1 format
- Validated using the 2023 ONC Cures Update R2.1 and USCDI v1 Validator Tool (att https://ett.healthit.gov/ett/#/validators/ccdar2).
- (b)(1) Transition of Care; MedicusEHR utilizes the DataMotion messaging capability to support sending and receiving DIRECT messages into EHR
- (b)(2) Clinical information reconciliation and incorporation; using Elsevier Gold Standard Drug Database
- (h)(1) Direct Project; This functionality allows certified EHR to demonstrate interoperability using DIRECT protocols. HISP: DataMotion

(b)(3) Electronic prescribing

Measure Description: Prescription-related electronic transaction: Create, Change, Cancel, Renew, Fill Status, Medication History including Status, Errors and Verification.

Testing Methodology/Method:

- MedicusEHR partners with Surescripts to validate and transmit electronic prescription orders to pharmacies.

- Tracking and counting how many NewRx electronic prescriptions successfully sent from MedicusEHR Prescription Builder to a pharmacy report range
- Tracking and counting how many Cancels Rx receive in the report range

Metric Definition: Internal log will be reviewed to analyze all customer using e-prescription of non-controlled substances, all prescription sends electronically and inbound responses. The metrics determine the ability of prescriber to send eRx and received response.

Care/Practice Setting: Ambulatory care setting is the most common one for MEDICUSEHR users. Many belong to specialties such as eye care, chiropractic and behavioral health. We don't specifically market to specialty areas, so this test plan will measure data from all settings in which the MedicusEHR is used.

Milestones: January 2025- December 2025- December 2025 (data collected monthly)

Expected Outcomes:

- Confirm Trading Partner
- Confirm ability to send and receive electronic prescriptions
- All transactions performed by the customer's EHR are accepted and validated by the Surescripts network.
- Confirm with TP that production data will be used, whether in an actual live environment or a copy of a live environment Prescription for non-controlled substances is shown in patient's record.
- Pharmacy confirms receipt of prescription electronically. Diagnoses are shown with prescription.
- Pharmacy shows modified prescription record.
- MEDICUSEHR successfully receives fill status
- HL7 message is sent to pharmacy. Pharmacy sends response back to MEDICUS.
- Care provider receives and approves refill requests.
- Pharmacy shows modified prescription record.
- Pharmacy shows cancelation received.

Justifications: We chose to concentrate on the aspects of this criterion that would demonstrate the importance of the electronic prescription process in terms of patient care. Managing prescriptions electronically helps to ensure medications are accurate and not in conflict with each other by reducing the possibility of human error.

Relied Upon Software:

- NCPDP SCRIPT Standard, Implementation Guide, Version 2017071

(b)(10) Electronic Health Information export

Measure Description: MedicusEHR provides export capabilities of electronic health information (EHI) for a single patient or multiple patient export. The export capability will result in an "exportzip" file which contains files in a machine-readable format in accordance with §170.315(b)(10) - Electronic Health Information export of the ONC 2015 Edition Cures Update Certification Criteria

Testing Methodology/Method: The authorized users can download the patient medical data, and export zip file. The zip file include: CCDA, Documents and Notes. The CCD include a set of core data elements.

Metric Definition: Demonstrate de capability to download and export the 100 percent of CCDA without developer assistance

Internal log will be reviewed:

- Timely create an export file(s) with all an export single patient's electronic health information stored
- Execute this capability at any time the authorized user chooses and without subsequent developer assistance
- Export files(s) created must be electronic and in a computable format.

Care/Practice Setting: Ambulatory care setting is the most common one for MEDICUSEHR users. Many belong to specialties such as eye care, chiropractic and behavioral health. We don't specifically market to specialty areas, so this test plan will measure data from all settings in which the MedicusEHR is used.

Milestones: January 2025- December 2025- December 2025 (data collected monthly)

Expected Outcomes:

- **SINGLE PATIENT EXPORT:** A user requires the "Allow user to export patient information" role to view the export option. Find the patient and open the Patient Center. Go to Actions, select Full Patient Export
- **MULTIPLE PATIENT EXPORT:** Contact Assertus to begin the bulk patient export.
- **EXPORT ZIP FILE OVERVIEW:** CCDA/, Documents, Notes

Justifications: Demonstrate the ability to using the functionality of export CCDs and additional patients' data from MedicusEHR on demand based in a real-world environment. This applies to single patient or a population.

CLINICAL QUALITY MEASURE:

(c)(1)—Record and Export

(c)(2)—Import and Calculate

(c)(3)—Report

Measure Description:

- Capture and record electronic clinical quality measure (eCQM) data in EHR (or trading partner's EHR) for calculating eCQMs.
- Electronically create a data file for transmission of CQM data in accordance with the CMS QRDA Category I IG for inpatient measures as adopted in § 170.205(h)(3) and CMS QRDA Category III IG for ambulatory measures as adopted in § 170.205(k)(3).

Testing Methodology/Method:

- Visual inspection and matching of QRDA I data to EHR data
- Matching of calculation results from CQMsolution to CMS
- API Sandbox testing with CMS for file acceptance

Metric Definition:

Internal log will be reviewed

- 100 percent matching data elements in CQMsolution vs EHR. This will be confirmed by visual validation of the following data:
  - Demographics
  - Problems
  - Medications
  - Allergies
- 100 percent matching calculation results in CQMsolution vs submission environment
- Zero (0) percent of files uploaded to submission environment result in errors

Care/Practice Setting: Ambulatory care setting is the most common one for MEDICUSEHR users. Many belong to specialties such as eye care, chiropractic and behavioral health. We don't specifically market to specialty areas, so this test plan will measure data from all settings in which the MedicusEHR is used.

Milestones: January 2025- December 2025- December 2025 (data collected monthly)

Expected Outcomes

- Confirm Trading Partner
- Confirm ability to calculate and report eCQMs
- Confirm with TP that production data will be used,
- whether in an actual live environment or a copy of a live environment
- Based on historical data, select the most popular eCQMs Admins with sufficient familiarity with the physician practice's clinical activities should be able to choose a period with an appropriate amount of quality data.
- Data ready for report generation.
- The CQMsolution report should complete with no errors.
- Use Patient List to check which categories Initial Patient Population (IPP), Denominator (Den), Exclusions (Excl), Numerator (Num) or Exceptions (Excp) each patient falls
- The file should upload and be accepted by the environment without error
- All populations of all measures should match.

Justifications:

- We chose to concentrate on the aspects of this criterion that would closely follow the actual activities of Medicus users with respect to eCQM calculation and output:
- Run quality measure reports and display results on Dashboard to compare with industry-standard benchmarks and with prior/expected performance.
- Generate eCQM output for PI/IQR (universal eCQM reporting program for hospitals) and ensure that it can be successfully uploaded to the PI/IQR website.
- Generate eCQM output for MIPS (the most widely used eCQM reporting program for ambulatory) and ensure that it can be successfully uploaded to the Quality Payment Program (QPP) website.
- Verify that CQMsolution is a product that can support hospital quality reporting needs.
- Verify that CQMsolution is a product that can support MIPS participants in achieving an end-to-end reporting bonus.

Relied Upon Software: Production Environment: Dynamic Health IT CQMsolution 6.0

PATIENT ENGAGEMENT

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

Measure Description: Provide patient (and their authorized representatives) user friendly, secure Portal access to their PHI in C-CDA 2.1 HL7 Standard format. Allowing patient to download a summary in both a human readable format and using the CCD document template of the Consolidated CDA Release 2.1 containing:

- The USCDI data elements
- The provider's name and office contact information
- Laboratory test report(s)
- Diagnostic image report(s)

Testing Methodology/Method:

- Direct Protocol Send Functionality
- SMTP Email Send Functionality
- HTTPS via secure portal Access for patient from any browser
- Ability for Portal to be accessed via a Smartphone or Tablet
- Tracking and counting the number of patients given access to portal

Metric Definition:

Internal log will be reviewed:

- Number of unique patients with Patient Portal account in the review period are provided timely access (within 24 hours of their encounter).
- Number of times patients views their clinical data through Encounter Summary
- Number of times patients download their clinical data
- Number of times patients transmit their clinical data to a third-party using email or direct message
- Number of times patient login into their patient portal

Care/Practice Setting: Ambulatory care setting is the most common one for MEDICUSEHR users. Many belong to specialties such as eye care, chiropractic and behavioral health. We don't specifically market to specialty areas, so this test plan will measure data from all settings in which the MedicusEHR is used.

Milestones: January 2025- December 2025- December 2025 (data collected monthly)

Expected Outcomes

- Confirm ability to provide patients timely access to their ePHI
- Confirm that production data will be used, whether in an actual live environment or a copy of a live Environment
- Patient demographics are captured in the EHR
- CCDS data elements are recorded in EHR
- Validate that a C-CDA has been triggered and received in Medicus
- Ensure patient is mapped to the right provider and practice.
- Visually verify CCDS data sections exist with accurate information
- Validate code systems and format with ScoreCard or ETT tool for schema validation.

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- Ensure patient received activation email or Patient is provisioned with Username
- Record validation in the audit log that patient has viewed C-CDA
- Validate NTP by comparing Portal timestamp with Medicus timestamp
- Record validation in the audit log that patient has downloaded C-CDA
- Record validation in the audit log that patient has transmitted the C-CDA via DIRECT or email

Justifications: We chose to concentrate on the aspects of this criterion that would empower patients with timely electronic access to comprehensive, useful ePHI.

PUBLIC HEALTH

(f)(1) Transmission to immunization registries

Measure Description: Create and transmit immunization information. Enable a user to request, access, and display a patient's evaluated immunization history and the immunization forecast from an immunization registry

Testing Methodology/Method

- Webservice
- HL7 Standard Code Set CVX – Vaccine AdministeredOID: 2.16.840.1.113883.12.292
- National Drug Code Directory OID: 2.16.840.1.113883.6.69
- SOAP-based standard for transport of immunization data
- PREIS url: https://prst1web.stchealthops.com/phchub/HL7Server

Metric Definition

Internal log will be reviewed:

- Number of customers with a unidirectional immunization interface, records successfully posted to registry confirmed by visual validation.
- Number of immunization history records successfully received in EHR confirmed by visual validation.
- Successful Transmission to Public Health Registry will be reviewed for ACK & NAK to ensure 100% successful transmission.

Care/Practice Setting: Ambulatory care setting is the most common one for MEDICUSEHR users. Many belong to specialties such as eye care, chiropractic and behavioral health. We don't specifically market to specialty areas, so this test plan will measure data from all settings in which the MedicusEHR is used.

Milestones: January 2025- December 2025- December 2025 (data collected monthly)

Expected Outcomes

- Production data as described in this RWT plan.
- Has a state immunization registry that can receive immunization data
- Already has a functional immunization interface or would like to implement one to their registry
- Validate that immunization interface is functioning as expected
- If production, determine whether an actual patient or a test patient will be used.
- Register a patient or create a new patient "A" in Client EHR
- Record an immunization in Client EHR
- Confirm immunization process
- Verify that immunization data was received for patient A

Justifications: We chose to concentrate on the aspects of this criterion that would provide the most patient care value in an actual setting. Immunization registries can be very helpful in directing and informing patient care and in cost control through identification of needed immunizations and elimination of redundant immunizations. In our experience, most immunization registries do not yet handle a bi-directional query/response type of interface. That's why we offered the Alternate Test Approach.

Relied Upon Software: PREIS url:

https://prst1web.stchealthops.com/phchub/HL7Server

APPLICATION PROGRAMMING INTERFACES:

(g)(7) Application access— patient selection

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

(g)(10) Standardized API for Patient and Population Services

Measure Description: Enable a patient to access their electronic health data through a Personal Health Record (PHR) app on their smartphone. They have had a healthcare encounter with a provider using an EHR that is integrated with the Application Data Access APIs for MedicusEHR v1.0 and Medicus EHR. They would like to view the results from that encounter along with the rest of their electronic health record.

Testing Methodology/Method

- HTTPS via secure portal
- Application Data Access APIs for MedicusEHR v1.0

- Via our MedicusEHR FHIR® API Server by Dynamic Health IT. Base API Url https://fhirpresentation.assertus.com/
- Service URL: https://fhirpresentation.assertus.com/fhir/r4/endpoints/

Metric Definition:

Internal log will be reviewed:

- Number of API request for Patient ID
- Number of API request for a patient USCDI data. Data will be confirmed by visual validation of the following JSON resources:
  - Demographics
  - Problems
  - Medications
  - Allergies
- Number of APIs that have activated the FHIR API
- Number of APIs that have configured third- party applications

Care/Practice Setting: Ambulatory care setting is the most common one for MEDICUSEHR users. Many belong to specialties such as eye care, chiropractic and behavioral health. We don't specifically market to specialty areas, so this test plan will measure data from all settings in which the MedicusEHR is used.

Milestones: January 2025- December 2025- December 2025 (data collected monthly)

Expected Outcomes:

- Partner with PHR or identify existing PHR that can receive patient clinical data
- Ensure that PHR has functionality to access the Application Data Access APIs for MedicusEHR v1.0, as described here.
- Partner with EHR that is integrated with the Application Data Access APIs for MedicusEHR v1.0 and Medicus EHR.
- CCDS data elements are validated in the system
- Patient Portal account must be manually created by an Administrator.
- The Administrator will create an account for a Patient or Representative
- Once the account is created by an Administrator, an email is sent with the Portal URL, a username and a password for logging in.
- On initial login, Patient A will need to provide their first and last name and DOB before being able to login.
- After initial activation, Patient Portal will automatically send an email reminder that Patient A has a new clinical document available.
- Specific credentials are provided to the Trading Partner to authenticate
- Trading Partners will authenticate using ConnectorAccountKey, Token, SessionKey, and LoginToken
- Once authenticated, Trading Partners will be allowed to call other methods and pull patient data
- Application Data Access APIs for MedicusEHR v1.0 has transformed C-CDA into JSON data.

- PHR app consumes JSON data to populate EHR data PHR app will return all data to be displayed for each data Category Data is confirmed to be in JSON format
- The client will get the request information to connect to us FHIR API with their credentials (client id and password)

Justifications: CMS has a focus on empowering patients by providing them with an electronic copy of their health record. We agree that this is very important for patient satisfaction and improving the population's health in general.

Relied Upon Software: Dynamic FHIR Server 4.0.1; ConnectEHR + BulkFHIR.

Attestation

This Real World Testing plan is complete with all required elements, including measures that address all certification criteria and care settings. All information in this plan is up to date and fully addresses the Health IT Developer's Real World Testing requirements.

Authorized Representative Name: Michael O. Jimenez Portal

Authorized Representative Email: michael.jimenez@assertus.com

Authorized Representative Phone: 787-622-2202

Authorized Representative Signature:

DocuSigned by:

Michael Jimenez

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Date:

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