DrChrono v11 2024 Real World Test Results

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General Information

Plan Report ID Number: **DrChrono.RWTR.2024**

Developer Name: **DrChrono Inc.**

Product Name(s): **DrChrono EHR**

Version Number(s): **11.0**

Product List (CHPL) ID(s): **15.99.04.2897.DRCH.11.03.1.220531**

Developer Real World Testing Page URL: https://support.drchrono.com/home/20829764052891-real-world-testing

Attestation

This Real-World Testing Report 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.

Signed by:
Tara Cox
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Date: 2/3/2025

Changes to Original Plan

Three changes were made to our original test plan to accommodate updates to our CEHRT to support the ONC Certification criteria. Two changes modified the scope of our Data Export real world testing by removing testing for the archived §170.315(b)(6) Data Export criterion and adding testing for the §170.315(b)(10) Electronic Health Information Export criterion. Scope was also increased to cover the §170.315(f)(1) Transmission to immunization registries criterion. This was a new criterion added to DrChrono in late 2023. Specific test plan modifications are as follows:

- For Use Case 3, the archived §170.315(b)(6) – Data Export ONC test criterion was removed and replaced with test criteria to support §170.315(b)(10) – Electronic Health Information Export criterion.
- For Use Case 6, two additional measures were added to support testing the new §170.315(f)(1) – Transmission to Immunization Registries criteria.
- Use Case 9 was merged into Use Case 6, so all the Public Health transmission measures were under a single use case.

The updated/added use cases are documented below.

Use Case 3 - EHR users export single patient and entire practice electronic health information exports to share with providers, patients, or third parties under the purview of HIPAA.

Certification Criteria	**Requirement**
§170.315(b)(10) – Electronic Health Information Export	(i) Single patient electronic health information export … (ii) Patient population electronic health information export …

Measure 1: Single/Practice patient export – This measure will assess functionality used to export EHI for a single patient and patient population in a production environment.

Justification: The evaluation of a statistically significant number of exports by users spanning multiple organizations using DrChrono will demonstrate the real-world utility of the data export.

Test Methodology: System logs will be reviewed to determine the volume of exports generated in various configurations (e.g., single-patient, patient population, etc.) and only by authorized users.

Expected Outcomes: Only authorized users can create export summaries successfully, and there will be evidence of successful exports using various configurations (e.g., single-patient, patient population, etc.).

Use Case 6 - Data is appropriately triggered and submitted to relevant public health agencies.

Certification Criteria	Requirement
§170.315(f)(1) – Transmission to Immunization Registries	(i) Create immunization information for transmission… (ii) Request and display patient's evaluated immunization history and forecast…
§170.315(f)(2) – Transmission to Public Health Agencies – Syndromic Surveillance	(i) Create syndrome-based public health surveillance information …
§170.315(f)(5) – Transmission to Public Health Agencies – Electronic Case Reports	(i) Match a patient visit to a trigger code based on parameters of trigger code table… (ii) Case report creation for electronic transmission…

Measure 1: Immunization information message success – This measure will evaluate the ability of DrChrono to submit conformant immunization messages in the primary care and family medicine setting.

Justification: Evaluating a statistically significant number of immunization messages spanning multiple organizations using DrChrono will demonstrate the real-world utility of capability.

Test Methodology: Manual verification and system logs will be evaluated for all applicable messages sent to registries.

Relied Upon Software: Iron Bridge Pub Hub 2.0

Expected Outcomes: Success is defined as the successful message submission to and receipt by all actively engaged registries, with standard errors (e.g., no response from the registry, formatting error beyond the scope of CEHRT specification requirements, etc.)

Measure 2: Immunization history and forecast message success – This measure will evaluate the ability of DrChrono to request, receive and display conformant immunization history and forecast messages in the primary care and family medicine setting.

Justification: Evaluating a statistically significant number of immunization history and forecast messages spanning multiple organizations using DrChrono will demonstrate the real-world utility of capability.

Test Methodology: Manual verification and system logs will be evaluated for all applicable messages sent to registries.

Expected Outcomes: Success is defined as the successful message submission to and receipt by all actively engaged registries, with standard errors (e.g., no response from the registry, formatting error beyond the scope of CEHRT specification requirements, etc.).

Measure 3: Syndromic surveillance message success – This measure will evaluate the ability of DrChrono to submit conformant syndromic surveillance messages in the urgent care setting.

Justification: Evaluating a statistically significant number of syndromic surveillance messages spanning multiple organizations using DrChrono will demonstrate the real-world utility of capability. Although these messages apply to urgent care, emergency department, and inpatient settings, DrChrono only serves urgent care settings.

Test Methodology: System logs will be evaluated for all applicable messages sent to registries.

Expected Outcomes: Success is defined as the successful message submission to and receipt by all actively engaged registries, with standard errors (e.g., no response from the registry, formatting error beyond the scope of CEHR specification requirements, etc.)

Measure 4: electronic case report message success – This measure will evaluate the ability of DrChrono to submit conformant electronic case report messages in the primary care setting.

Justification: Evaluating a statistically significant number of electronic case reporting messages spanning multiple organizations using DrChrono will demonstrate the real-world utility of capability. DrChrono will be focused on testing this criterion in the primary and urgent care settings.

Test Methodology: System logs will be evaluated for all applicable messages sent to registries.

Expected Outcomes: Success is defined as the successful message submission to and receipt by all actively engaged registries, with standard errors (e.g., no response from the registry, formatting error beyond the scope of CEHR specification requirements, etc.)

Withdrawn Products

DrChrono did not have any withdrawn product during the 2024 calendar year.

Summary of Testing Methods and Key Findings

During DrChrono's real world testing in 2024, all testing resulted in 100% conformance except for the following ONC criterion:

- §170.315(e)(1) – View, Download, and Transmit to 3rd Party
- §170.315(b)(3) – Electronic Prescribing

Any issues found are described in the Metrics and Outcomes section. DrChrono is working to remediate the blank CCDA PDF files in the Download and Transmit functions within the OnPatient portal.

All electronic prescribing errors encountered were expected errors from the network, and, thus, no additional remediation is necessary.

We used the following methodologies for our testing:

- **Audit Trail/ Reporting:** This methodology uses the audit logging or various reporting capabilities of the application to examine tasks performed in the system. This methodology often provides historical measurement reports which can be accessed at different times of the year to evaluate interoperability. It can serve as a benchmark for evaluating real-world testing over multiple time intervals.
- **Third-Party Software Confirmation or Attestation:** This methodology leverages industry-standard or industry-required technology and services to evaluate data sharing. By way of example, when submitting an electronic prescription in the 20170701 SCRIPT standard to Surescripts, it may be necessary to review logs stored in the Surescripts Admin Console to verify receipt and accuracy of data provided. Other third-party software may be used as well to simulate or confirm activities when another option is not available. It may also be necessary to receive attestation reports from third-party applications to verify the receipt and accuracy of data when access to the third-party system is unavailable or prohibited.
- **Manual Chart Review:** This methodology leverages human intervention to visually review and confirm changes to data as expected. When data is shared to the application that may cause a change to a patient's medical chart, it may be necessary for a human to review the expected change and sign-off that the update occurred as expected.

Standards Updates (SVAP and USCDI)

For CY 2024, DrChrono did not make any version updates on approved standards through the SVAP process. This applies to all test scenarios described within.

Care Settings

DrChrono performed real world testing in 2024 for the following care settings:

- Chiropractic
- Family Practice / Primary Care
- Orthopedic Surgery
- Pain Management
- Pediatrics
- Physical Therapy
- Podiatry
- Psychiatry

Metrics and Outcomes

Use Case 1 - During ambulatory care, providers share patient records (CCDAs) with each other and, where appropriate, reconcile critical clinical data elements into the chart. § 170.315 (b)(1) Transition of Care; §170.315(b)(2) – Clinical Information Reconciliation and Incorporation; and §170.315(h)(1) – Direct Project

Measure 1: Create a valid CCDA

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
A different EHR receives and recognizes each type of CCDA as conformant.	Updox	100% Conformance	None

Measure 2: Create and Send a CCDA

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
CCDAs of each required type of successfully created and sent via Direct with common errors (e.g., invalid direct address, no response from the receiver, etc.).	Updox	100% Conformance	None

Measure 3: Receive and display a CCDA § 170.315 (b)(1) Transition of Care and §170.315(h)(1) – Direct Project

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
Examples CCDA files are successfully received and displayed.	Updox	100% Conformance	None
CCDAs successfully received via Direct with standard errors (e.g., incorrect CCDA format)	Updox	100% Conformance	None

Measure 4: Receive and reconcile a CCDA § 170.315 (b)(2) Reconciliation and §170.315(h)(1) – Direct Project

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
Users successfully use CEHRT to receive and reconcile data into patients' charts.	Updox	100% Conformance	None

Use Case 2 - During ambulatory care, patients access a copy of their records (CCDs) for viewing, downloading, and/or transmitting. §170.315(e)(1) – View, Download, and Transmit to 3rd Party

Measure 1: Validate user behavior around view actions

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
Number of patients with successful CCD document previews.	N/A	3 of 3 Patients for 100% Conformance	None

Measure 2: Validate user behavior around download actions.

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
Number of patients that can successfully download CCD documents.	N/A	3 of 3 Patients Tested with 50% Conformance	Both PDF and XML Files Download; However, Human Readable Version (PDF) in Blank

Measure 3: Validate user behavior around transmit actions

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
CCD documents were successfully sent as encrypted, password protected files via email with the expected errors (e.g., invalid email address, lack of response, etc.)	N/A	50% Conformance	Both PDF and XML CCDA Files Received; However, Human Readable Version (PDF) in Blank
CCD documents were successfully sent via email with standard errors (e.g., invalid email address, etc.).	N/A	50% Conformance	Both PDF and XML CCDA Files Received; However, Human Readable Version (PDF) in Blank

Use Case 3 - EHR users export single patient and entire practice electronic health information exports to share with providers, patients, or third parties under the purview of HIPAA - §170.315(b)(10) – Electronic Health Information Export

Measure 1: Single/Multi patient export

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
Only authorized users can create export summaries successfully, and there will be evidence of successful exports using various configurations (e.g., single-patient, patient population, etc.)	None	100% Conformance	None

Use Case 4 - Clinicians electronically prescribe medications. §170.315(b)(3) – Electronic Prescribing

Measure 1: Transaction success rates

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
NewRx Transactions are successfully delivered with standard errors (e.g., pharmacy does not support electronic transactions). Data validation errors are prevented, or the end-user is notified of the errors when applicable.	Surescripts	99% Success Rate	None. Users received common validation warnings/errors from the application as expected for missing data requirements/etc.
RxChange Transactions are successfully delivered with standard errors (e.g., pharmacy does not support electronic transactions). Data validation errors are prevented, or the end-user is notified of the eros when applicable.	Surescripts	88% Success Rate	None. Limited adoption. Not all practices we tested are utilizing this message type. Seeing errors back to the pharmacy when trying to send RxChange messages to providers not enabled for the message type.

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
CancelRx Transactions are successfully delivered with standard errors (e.g., pharmacy does not support electronic transactions). Data validation errors are prevented, or the end-user is notified of the errors when applicable.	Surescripts	99% Success Rate	None. Limited adoption. Not all practices we tested utilize this message type. Users received common validation warnings/errors from the application as expected.
RxRenewal Transactions are successfully delivered with standard errors (e.g., pharmacy does not support electronic transactions). Data validation errors are prevented, or the end-user is notified of the errors when applicable.	Surescripts	98% Success Rate	None. Users received common validation warnings/errors from the application as expected for missing data requirements/etc.
RxFill Transactions are successfully delivered with standard errors (e.g., pharmacy does not support electronic transactions). Data validation errors are prevented, or the end-user is notified of the errors when applicable.	Surescripts	90% Success Rate	None. Limited adoption. Not all practices we tested are utilizing this message type. Seeing errors back to the pharmacy when trying to send RxFill messages to providers not enabled for the message type.
Medication History Transactions are successfully delivered with standard errors (e.g., pharmacy does not support electronic transactions). Data validation errors are prevented, or the end-user is notified of the errors when applicable.	Surescripts	96% Success Rate	None. Seeing standard errors, “the connection with receiver timed out before the response was returned. Status of message at receiver is unknown.”

Use Case 5 - EHR users generate QRDA files that comply with the latest specifications for submission to CMS and other quality reporting requirements. §170.315(c)(1) – CQMs – Record and Export; §170.315(c)(2) – CQMs – Import and Calculate; and §170.315(c)(3) – CQMs – Report

Measure 1: eCQM calculation success rates

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
Test cases pass expected errors (e.g., due to known specification gap, etc.)	None	100% Conformance	None

Measure 2: QRDA file export conformance

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
Files conform to required specifications, and all data for the eCQMs in the file are present in the other EHR. File samples conform to currently implemented QRDA II standards.	None	100% Conformance	None

Measure 3: QRDA file import conformance

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
File import, with any import errors (file or formatting related), flagged to the end-users, and imported data is used to calculate eCQMS results correctly.	None	100% Conformance	None

Use Case 6 - Data is appropriately triggered and submitted to relevant public health agencies.
§170.315(f)(1) – Transmission to Immunization Registries;
§170.315(f)(2) – Transmission to Public Health Agencies – Syndromic Surveillance; and
§170.315(f)(5) – Transmission to Public Health Agencies – Electronic Case Reports

Measure 1: Immunization information message success

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
The successful message submission to and receipt by all actively engaged registries, with standard errors (e.g., no response from the registry, formatting error beyond the scope of CEHRT specification requirements, etc.)	Iron Bridge Pub Hub 2.0	100% Conformance	None.

Measure 2: Immunization history and forecast message success

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
The successful message submission to and receipt by all actively engaged registries, with standard errors (e.g., no response from the registry, formatting error beyond the scope of CEHR specification requirements, etc.)	None	100% Conformance	None.

Measure 3: Syndromic surveillance message success

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
The successful message submission to and receipt by all actively engaged registries, with standard errors (e.g., no response from the registry, formatting error beyond the scope of CEHR specification requirements, etc.)	None	100% Conformance	No production practices utilizing this feature, so test production practices were used for testing.

Measure 4: Electronic case report message success

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
Successful message submission to and receipt by all actively engaged registries, with standard errors (e.g., no response from the registry, formatting error beyond the scope of CEHR specification requirements, etc.).	None	100% Conformance	No production practices utilizing this feature, so test production practices were used for testing.

Use Case 7 - Independent vendors and DrChrono customers use certified APIs for both patient and provider-oriented use cases. §170.315(g)(7) – Application Access – Patient Selection; and §170.315(g)(9) – Application Access – All Data Request

Measure 1: Successful API request for a Patient

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
1. Successful Requests Served: - Denominator: Total requests of certified API(s) - Numerator: Total number of successful responses	None	100% Conformance 3/3 Success Rate	None
2. Successful API Information Sources with at least one successful response -- validates successful API use spanning current API Information Sources: - Denominator: Total API Information Sources with at least one request - Numerator: Total API Information Sources with at least one successful response	None	100% Conformance 3/3 Success Rate	None
3. Successful receipt of error response with the usage of incorrect API credentials: - Denominator: Total API Users with at least one request - Numerator: Total API Users with at least one successful response	None	100% Conformance 1/1 Success Rate	None

Use Case 8 - Independent vendors and DrChrono customers use certified FHIR APIs for both single and multi-patient use cases. §170.315(g)(10) – Standardized API for patient and population services

Measure 1: The Request Success Rate for Certified API's

Expected Outcome	Relied Upon Software	Results	Challenges Encountered
1. Single Patient FHIR Resource Requests Served: • Denominator: Total requests of certified API(s) • Numerator: Total number of successful responses	DHIT Connect EHR + BulkFHIR (version FHIR4-B)	100% Conformance 3/3 Success Rate	None
2. Multiple Patient FHIR Resource Requests Served: • Denominator: Total requests of certified API(s) • Numerator: Total number of successful responses	DHIT Connect EHR + BulkFHIR (version FHIR4-B)	100% Conformance 3/3 Success Rate	No third-party app was ready to test so manual verification was required.
3. Invalid Token Returns 1 or more Errors: • Denominator: Total API Users with at least one request • Numerator: Total API Users with invalid token returns at least one error response	DHIT Connect EHR + BulkFHIR (version FHIR4-B)	100% Conformance 3/3 Success Rate	None

Key Milestones

Key Milestones	Data/Timeframe
Recruitment of organizations participating in de-identified data collection	September 2024
Start of collection of necessary data as laid out by plan (will vary by measure)	November 2024
End of collection of required data as laid out by plan (will vary by measure)	February 2024
Analysis of Data (will vary by measure)	February 2025
Submit Real World Testing Report to ACB	February 2025