



CY 2024 Real World Testing Plan for Abeo Solutions

Executive Summary

This is the real world test plan for CY 2024 for Abeo Solutions Crystal Practice Management certified EHR solution. It provides the real world test measurements and metrics that meet the intent and objectives of ONC’s Condition of Certification and Maintenance of Certification requirement for real world testing (§ 170.405 Real world testing) to evaluate compliance with the certification criteria and interoperability of exchanging electronic health information (EHI) within the care and practice setting which it is targeted for use.

As ONC has stated in its rule, “The objective of real world testing is to verify the extent to which certified health IT deployed in operational production settings is demonstrating continued compliance to certification criteria and functioning with the intended use cases as part of the overall maintenance of a health IT’s certification.” We have worked toward this objective in designing our test plan and its subsequent real world testing measurements and metrics.

This document builds toward the final testing measurements and metrics we will use to evaluate our product interoperability within production settings. Within each measure, we document planned testing methodology, associated ONC criteria, justification for measurement, expected outcomes from the testing, care settings applied for this measure, and if applicable the number of clients to use the our real world testing approach, including how our test cases were created, our selected methodology, the number of client/practice sites to use, and our general approach and justification for decisions.

We have included our timeline and milestones for completing the real world testing in CY 2024, and information about compliance with the Standards Version Advancement Process updates.

A table of contents with hyperlinks is provided later in the plan quick access to any document section, including the testing measurements and metrics found at the end of this document. Our signed attestation of compliance with the real world testing requirements is on the following page.



Developer 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.

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General Information

Plan Report ID Number: Abeo-RWT-2024

Developer Name: Abeo Solutions

Product Name(s): Crystal Practice Management

Version Numbers(s): 6.0

Certified Health IT Criteria: 315(b)(1), (2), (6); (c)(1)-(c)(3); (e)(1); (f)(1); (g)(7); (g)(9); (g)(10);

Product List (CHPL) ID(s) and Link(s):

- <https://chpl.healthit.gov/#/listing/10996>
- 15.04.04.1030.Crys.06.01.1.221004

Developer Real World Testing Page URL: <http://crystalpm.com/certification/>

Timeline and Milestones for Real World Testing CY 2024

- 1Q-2024: Begin communication with clients to ask for their support and participation in real world testing. The goal is to have a sufficient number of clients committed for real world testing by the end of 1Q-2024.
- 2Q-3Q 2024. During the 2nd and 3rd quarter of CY 2024, the real world testing with clients will be scheduled and performed. It is expected that a preparatory call will be done with clients to prepare them for testing activities. Results will be documented in the test results section of the test methods and ultimately used to build the test report. If any non-compliances are observed, we will notify the ONC-ACB of the findings and make the necessary changes required.
- 4Q-2024. During the last quarter of the year, the CY 2024 real world test plan will be completed according to ONC and ONC-ACB requirements and expectations. Test plan will be prepared for submission before the end of the year.



Standards Version Advancement Process (SVAP) Updates

For CY 2024, we are not planning to make any version updates on approved standards through the SVAP process. We have implemented USCDI v1 in our C-CDAs and API support.

Standard (and version)	USCDIv1
Updated certification criteria and associated product	170.315 (b)(1), 170.315 (b)(2), 170.315 (e)(1), 170.315 (g)(6), 170.315 (g)(9) for Crystal Practice Management 6.0
Health IT Module CHPL ID	15.04.04.1030.Crys.06.01.1.221004
Method used for standard update	Certification Attestation
Date of ONC-ACB notification	N/A
Date of customer notification (SVAP only)	N/A (only for SVAP)
Conformance measure	170.315 (b)(1) using ONC Test Procedure 1.1 and Edge Test Tool 2.3.48, 170.315 (b)(2) using ONC Test Procedure 1.2 and Edge Test Tool 2.3.48, 170.315 (e)(1) using ONC Test Procedure 1.4 and Edge Test Tool 2.3.48, 170.315 (g)(6) using ONC Test Procedure 1.1, 170.315 (g)(9) using ONC Test Procedure 1.2 and Edge Test Tool 2.3.48
USCDI-updated certification criteria (and USCDI version)	170.315 (b)(1), 170.315 (b)(2), 170.315 (e)(1), 170.315 (g)(6), 170.315 (g)(9) for USCDIv1

Real World Testing Measurements

The measurements for our real world testing plan are described below. Each measurement contains:

- Associated ONC criteria
- Testing Methodology used
- Description of the measurement/metric
- Justification for the measurement/metric
- Expected outcomes in testing for the measurement/metric
- Number of client sites to use in testing (if applicable)
- Care settings which are targeted with the measurement/metric

In each measurement evaluate, we elaborate specifically on our justification for choosing this measure and the expected outcomes. All measurements were chosen to best evaluate compliance with the certification criteria and interoperability of exchanging electronic health information (EHI) within the certified EHR.

Testing Methodologies

For each measurement, a testing methodology is used. For our test plan, we use the following methodologies.

Reporting/Logging: This methodology uses the logging or reporting capabilities of the EHR to examine functionality performed in the system. A typical example of this is the measure reporting done for the automate measure calculation required in 315(g)(2), but it can also be aspects of the audit log or customized reports from the EHR. This methodology often provides historical measurement reports which can be accessed at different times of the year and evaluate interoperability of EHR functionality, and it can serve as a benchmark for evaluating real world testing over multiple time intervals.

Number of Clients Sites

Within each measure, we note the minimum number of clients or client sites we plan to use for this measure evaluation. The numbers vary depending on the methodology as well as overall use of the associated EHR Module criteria by our users. For criteria that are not widely used by our customer base, we may test the respective measure in our own production-sandbox environment given lack of customer experience with the criteria functionality.

Care and Practice Settings Targeted

Our EHR is primarily targeted to optometry, and our measures were design for this setting in mind. In each measure, we do also address the care settings targeted and note any necessary adjustment or specific factor to consider with this specific measure.



RWT Measure #1. Number of Transition of Care C-CDAs Successfully Sent

Associated Criteria: 315(b)(1), 315(h)(1)

Testing Methodology: Reporting/Logging

Measurement Description

This measure is tracking and counting how many C-CDAs are created and successfully sent from the EHR Module to a 3rd party via Direct messaging during a transition of care event over the course of a given interval.

Upon the time of testing, we will use an interval of twelve (12) months previous to the current date to analyze the messages exchanged during this time.

Measurement Justification

This measure will provide a numeric value to indicate both the how often this interoperability feature is being used as well as its compliance to the requirement. An increment to this measure indicates that the EHR can create a C-CDA patient summary record, including ability to record all clinical data elements, and by sending the C-CDA patient summary record, the EHR demonstrates successful interoperability of an exchanged patient record with a 3rd party. This measurement shows support for Direct Edge protocol in connecting to a HISP for successful transmission.

This measure will also demonstrate the successful integration with our primary HISP Rosetta Health HISPDirect.

Measurement Expected Outcome

The measurement will produce numeric results over a given interval. We will utilize various reports and audit logs, including Automated Measure (315.g.2) reports, to determine our measure count.

Whenever a transition of care C-CDA is sent through the Direct Mail integration, our logs will determine many documents and many unique patients were involved which allows us to analyze the results to obtain our interoperability metrics.

A successful measure increment indicates compliance to the underlying ONC criteria. It will show that the EHR can create the C-CDA patient summary record, including record required clinical data elements. In sending the C-CDA patient summary record, the EHR will demonstrate ability to confirm successful interoperability of an exchanged patient record with a 3rd party, including support for Direct Edge protocol in connecting to a HISP (Rosetta Health). Successfully completing this measure also implies users have a general understanding of the EHR functional operations for this EHR Module and an overall support for the user experience while not



completing this measure may indicate lack of understanding or possibly lack of use or need for this functionality.

We will use the measure count to establish a historic baseline of expected interoperability use so it can be used in subsequent real world testing efforts.

Care Settings and Number of Clients Site to Test

We designed this measure to test the optometry setting that we support and target. We will test a minimum of five (5) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

Relied Upon Software

Software Component: C-CDA Transmission

Service Name: Rosetta Health HISPDirect

Version: 3.0

Rosetta Health HISPDirect 3.0 is designed to securely transmit Continuity of Care Documents (C-CDAs) via Direct Messaging as part of the care transition process. It ensures that our EHR software can successfully send C-CDAs to third parties, which is crucial for interoperability and compliance with criteria 315(b)(1) and 315(h)(1).



RWT Measure #2. Number of C-CDAs Received and/or Incorporated
Associated Criteria: 315(b)(1), (b)(2), (h)(1)

Testing Methodology: Reporting/Logging

Measurement Description

This measure is tracking and counting how many C-CDAs are successfully received and/or incorporated upon receipt from a 3rd party via Direct messaging during a transition of care event over the course of a given interval.

Upon the time of testing, we will use an interval of twelve (12) months previous to the current date to analyze the messages exchanged during this time.

Measurement Justification

Receiving and incorporating patient records as C-CDAs is critical to patient care and is an important feature of EHRs which is why this measure was selected. This measure will provide a numeric value to indicate both the how often this interoperability feature is being used as well as its compliance to the requirement. An increment to this measure indicates that the EHR can receive a C-CDA patient summary record, and by incorporating the C-CDA patient summary record, the EHR demonstrates successful interoperability of problems, medications, and medication allergies of patient record with a 3rd party.

This measurement shows support for Direct Edge protocol in connecting to our HISP, Rosetta Health HISPDirect, for successful exchange.

Measurement Expected Outcome

The measurement will produce numeric results over a given interval. We will utilize various reports and audit logs, including Automated Measure (315.g.2) reports, to determine our measure count.

A log entry is added whenever a practice receives a Direct Mail message with a C-CDA attached, when the Direct Mail message is associated with a patient, and when the C-CDA attached to the Direct Mail message is incorporated with a patient's data. We then upload the aggregated and generalized (non-PHI) data from the logs to our analytics in our cloud database on a set interval (every 6 months).

A successful measure increment indicates compliance to the underlying ONC criteria. It will show that the EHR can create the EHR can receive a C-CDA patient summary record. In incorporating the C-CDA patient summary record, the EHR will demonstrate successful interoperability of problems, medications, and medication allergies of patient record with a 3rd party, including support for Direct Edge protocol in connecting to a HISP. Successfully completing this measure also implies users have a general understanding of the EHR functional



operations for this EHR Module and an overall support for the user experience while not completing this measure may indicate lack of understanding or possibly lack of use or need for this functionality.

We will use the measure count to establish a historic baseline of expected interoperability use so it can be used in subsequent real world testing efforts.

Care Settings and Number of Clients Site to Test

We designed this measure to test the optometry setting that we support and target. We will test a minimum of five (5) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

Relied Upon Software

Software Component: C-CDA Exchange

Service Name: Rosetta Health HISPDirect

Version: 3.0

Rosetta Health HISPDirect 3.0 supports the reliable receipt and integration of C-CDAs via Direct Messaging, which is essential for transitions of care. It allows for the seamless incorporation of patient summaries received from third-party systems into the EHR, ensuring ongoing interoperability and adherence to criteria 315(b)(1), (b)(2), and (h)(1).



RWT Measure #3. Number of Patients Given Access to Portal

Associated Criteria: 315(e)(1)

Testing Methodology: Reporting/Logging

Measurement Description

This measure is tracking and counting how many patients are given login access to their patient portal account over the course of a given interval.

Upon the time of testing, we will use an interval of twelve (12) months previous to the current date to analyze the messages exchanged during this time.

Measurement Justification

Patients' ability to access their health records through an online portal is critical part of modern health IT, and this measure will provide a numeric value to indicate how often patients are given access to their patient portal. An increment to this measure indicates that the EHR can supply patient health data to the patient portal and provide an account for the patient to use in accessing this data.

Measurement Expected Outcome

The measurement will produce numeric results over a given interval. We will utilize various reports and audit logs, including Automated Measure (315.g.2) reports, to determine our measure count.

When a patient or patient's authorized user is given access to the patient portal, a log entry will be created for analysis. We then upload the aggregated and generalized (non-PHI) data from the logs to our analytics in our cloud database on a set interval (every 6 months).

A successful measure increment indicates compliance to the underlying ONC criteria. It will show that the EHR can submit patient health data to the patient portal on a regular and consistent basis as well provide an account for the patient to use in accessing this data. Successfully completing this measure also implies users have a general understanding of the EHR functional operations for this EHR Module and an overall support for the user experience while not completing this measure may indicate lack of understanding or possibly lack of use or need for this functionality.

We will use the measure count to establish a historic baseline of expected interoperability use so it can be used in subsequent real world testing efforts.



Care Settings and Number of Clients Site to Test

We designed this measure to test the optometry setting that we support and target. We will test a minimum of five (5) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

Relied Upon Software

Software Component: Direct Messaging

Service Name: Rosetta Health HISPDirect

Version: 3.0

Rosetta Health HISPDirect 3.0 facilitates the secure exchange of health information through Direct Messages. It provides our customers with the means to send Direct Messages using our EHR software. Patients can also use this system to send messages to providers with Direct Mail addresses through the online Patient Portal.



RWT Measure #4. Number of Direct Messages Successfully Sent

Associated Criteria: 315(h)(1)

Testing Methodology: Reporting/Logging

Measurement Description

This measure is tracking and counting how many Direct messages were successfully sent from the EHR Module to a 3rd party over the course of a given interval.

Upon the time of testing, we will use an interval of twelve (12) months previous to the current date to analyze the messages exchanged during this time.

Measurement Justification

This measure will provide a numeric value to indicate number of Direct messages sent from the EHR. Because our certification to 315(h)(1) relies upon Rosetta Health HISPDirect as additional software, we want to create a metric to evaluate it is successfully working and integrated within product. An increment to this measure indicates that the EHR can create a Direct message and demonstrates successful interoperability of an exchanged message with a 3rd party.

Measurement Expected Outcome

The measurement will produce numeric results over a given interval. We will utilize various reports and audit logs, including Automated Measure (315.g.2) reports, to determine our measure count.

Whenever a Direct Mail message is successfully sent, a specific type of log is added. We then upload the aggregated and generalized (non-PHI) data from the logs to our analytics in our cloud database on a set interval (every 6 months).

A successful measure increment indicates compliance to the underlying ONC criteria. It will show that the EHR can be authenticated with DirectTrust, create a Direct message, and demonstrate interoperability of an exchanged message with a 3rd party. Successfully completing this measure also implies users have a general understanding of the EHR functional operations for this EHR Module and an overall support for the user experience while not completing this measure may indicate lack of understanding or possibly lack of use or need for this functionality.

We will use the measure count to establish a historic baseline of expected interoperability use so it can be used in subsequent real world testing efforts.



Care Settings and Number of Clients Site to Test

We designed this measure to test the optometry setting that we support and target. We will test a minimum of five (5) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

Relied Upon Software

Software Component: Message Transmission

Service Name: Rosetta Health HISPDirect

Version: 3.0

Rosetta Health HISPDirect 3.0 is critical for sending Direct Messages from our EHR system to third parties, ensuring compliance with the criterion 315(h)(1). This capability is key to demonstrating the successful interoperability and integration of our Direct Messaging feature within the EHR product, allowing for secure and verified communication between healthcare providers and external parties.



RWT Measure #5: Number of Patient Batch Exports Run

Associated Criteria: 315(b)(6)

Testing Methodology: Reporting/Logging

Measurement Description

This measure is tracking and counting how many batch exports of C-CDAs were successfully performed by the Crystal Practice Management EHR over the course of a given interval.

Upon the time of testing, we will use an interval of twelve (12) months before the current date to analyze the messages exchanged during this time.

Measurement Justification

This measure will provide a numeric value to indicate both the how often this interoperability feature is being used as well as its compliance to the requirement. An increment to this measure indicates that the EHR can create a batch export of multiple C-CDA patient summary records.

Measurement Expected Outcome

The measurement will produce numeric results over a given interval. We will utilize various reports, audit logs, user submitted reports, and other means to determine our measure count.

A successful measure increment indicates compliance to the underlying ONC criteria. It will show that the EHR can create a batch export of multiple C-CDA patient summary records, which can be used in means of health IT interoperability. Successfully completing this measure also implies users have a general understanding of the EHR functional operations for this EHR Module and an overall support for the user experience while not completing this measure may indicate lack of understanding or possibly lack of use or need for this functionality.

We will use the measure count to establish a historic baseline of expected interoperability use so it can be used in subsequent real world testing efforts.

Care Settings and Number of Clients Site to Test

We designed this measure to test the optometry setting that we support and target. We will test a minimum of five (5) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.



RWT Measure #6. Number of Quality Measures Successfully Reported on to CMS

Associated Criteria: 315(c)(1)-(c)(3)

Testing Methodology: Reporting/Logging

Measurement Description

This measure is tracking and counting how many eCQM quality measures were successfully reported on by the Crystal Practice Management EHR to CMS over the course of a given interval.

Upon the time of testing, we will use an interval of twelve (12) months before the current date to analyze the measures submitted during this time.

Measurement Justification

This measure will provide a count and list of electronic clinical quality measures (eCQMs) which are calculated and submitted to CMS for a given program, like MIPS. Clinical quality measures are only used for the respective CMS programs and any production measures should utilize submission to CMS. Because CQM criteria, 315(c)(1)-(c)(3), all work collectively together in the eCQM functionality of the EHR Module, this measurement is used for all three.

Measurement Expected Outcome

The measurement will a count and list of eCQMs submitted to CMS over a given interval. We will utilize various reports, audit logs, user submitted reports, and other means to determine our measure count.

A successful measure submission indicates compliance to the underlying ONC criteria. It will show that the EHR can do calculations on the eCQM and that they are accepted by CMS. Successfully completing this measure also implies users have a general understanding of the EHR functional operations for this EHR Module and an overall support for the user experience while not completing this measure may indicate lack of understanding or possibly lack of use or need for this functionality.

We will use the measure result to establish a historic baseline of expected interoperability use so it can be used in subsequent real world testing efforts.

Care Settings and Number of Clients Site to Test

We designed this measure to test the optometry setting that we support and target. We will test a minimum of five (5) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

RWT Measure #7. Number of IIS/Immunization Registries Connected with our EHR

Associated Criteria: 315(f)(1)

Testing Methodology: Reporting/Logging

Measurement Description

This measure is tracking and counting how many immunization registries are connected to our EHR over the course of a given interval.

Upon the time of testing, we will use an interval of twelve (12) months before the current date to analyze the messages exchanged during this time.

Measurement Justification

This measure will provide a numeric value to indicate both the how often this interoperability feature is being used as well as its compliance to the requirement. An increment to this measure indicates that an immunization registry can be connected with our EHR and exchange messages.

Measurement Expected Outcome

The measurement will produce numeric results over a given interval. We will utilize various reports, audit logs, user submitted reports, and other means to determine our measure count.

A successful measure increment indicates compliance to the underlying ONC criteria. It will show that the EHR can interface with an immunization registry. Through this interface, the EHR will be able to create the HL7 immunization record, including ability to record the required clinical data elements. In sending the immunization message, the EHR will demonstrate ability to confirm successful interoperability of patient's immunization data to an IIS/immunization registry. Successfully completing this measure also implies users have a general understanding of the EHR functional operations for this EHR Module and an overall support for the user experience while not completing this measure may indicate lack of understanding or possibly lack of use or need for this functionality.

We will use the measure count to establish a historic baseline of expected interoperability use so it can be used in subsequent real world testing efforts.

Care Settings and Number of Clients Site to Test

We designed this measure to test the optometry setting that we support and target. We will test a minimum of five (5) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.



RWT Measure #8. Number of 3rd Party Applications Registered and Authorized to use FHIR API to Access Patient Data

Associated Criteria: 315(g)(7), (g)(9), (g)(10)

Testing Methodology: Reporting/Logging

Measurement Description

This measure is tracking and counting how many 3rd party applications are successfully registered and authorized to use the Crystal Practice Management FHIR API service.

Measurement Justification

This measure will provide a numeric value to indicate both the how many client systems are using the FHIR API service of the EHR. An increment to this measure indicates that a 3rd party is registered and authorized and can query the clinical resources of the patient health record via the FHIR API interface and thus demonstrate API interoperability.

Measurement Expected Outcome

The measurement will produce numeric results over a given interval. We will utilize various reports, audit logs, user submitted reports, and other means to determine our measure count. Upon the time of testing, we will determine how many applications have been registered and have used the API within the twelve (12) month time period before the current date.

A successful measure increment indicates compliance to the underlying ONC criteria. It will show that a 3rd party client can be authenticated, that the patient record can be properly identified and selected, and that the EHR can make patient data accessible via its FHIR API interface. Successfully completing this measure also implies the public API documentation is accurate and sufficient for 3rd parties to connect and use the API while not completing this measure may indicate lack of understanding or possibly lack of use or need for this functionality.

We will use the measure count to establish a historic baseline of expected interoperability use so it can be used in subsequent real world testing efforts.

Care Settings and Number of Clients Site to Test

We designed this measure to test the optometry setting that we support and target. We will test a minimum of five (5) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.



RWT Measure #9. How many different HIEs/HINs are connected with our EHR?

Associated Criteria: 315(h)(1)

Testing Methodology: Reporting/Logging

Measurement Description

This is a measure to determine how many different HIEs or HINs are connected to our EHR installations.

Measurement Justification

This measure will determine how many different HIEs or HINs have connected with our EHR for exchanging of data. We'll run our internal tool to find out how many offices use each supported HIE integration.

This information can reveal the impact and value HIE interoperability. With TEFCA effort coming in the near future, use of HIEs will likely be more important in the coming years.

Measurement Expected Outcome

We'll run an internal tool to determine out how many offices have done HIE integration with the following HIEs: (American Optometric Association (AOA), Kentucky Health Information Exchange (KHIE), One Health Port (OHP, Washington State HIE).

The answer will provide insight into how clinicians view both the use and value of this interoperability feature. For example, this may show that additional training is needed to better utilize the feature or that it is not currently utilized as currently designed. It will provide a benchmark for evaluate future surveys as well as to share insight into any new development for improvements or enhancements of the health IT system.

Care Settings and Number of Clients Site to Test

We will do this search through all of our optometry sites to determine which ones are connected to HIEs or HINs.



CY 2024 Real World Testing Results for Abeo Solutions

General Information

Plan Report ID Number: Abeo-RWT-2023

Product Name(s): Crystal Practice Management

Version Numbers(s): 6.0

Certified Health IT Criteria: 315(b)(1), (2), (6); (c)(1)-(c)(3); (e)(1); (f)(1); (g)(7); (g)(9); (g)(10)

Developer Real World Testing Page URL: <http://crystalpm.com/certification/>

Developer Name: Abeo Solutions

Product List (CHPL) ID(s) and Link(s):

- <https://chpl.healthit.gov/#/listing/10996>
- 15.04.04.1030.Crys.06.01.1.221004



Summary of Testing Methods and Key Findings

We conducted Real World Testing using two distinct methods: automatically collected analytics and software based surveys. Both types of data were collected using just our software, Crystal Practice Management. Both types of data are combined and uploaded once a month to our web database from every practice that's running Crystal Practice Management.



Standards Version Advancement Process (SVAP) Updates

For CY 2024, we were not planning to make any version updates on approved standards through the SVAP process. We have implemented USCDI v1 in our C-CDAs and API support.

Standard (and version)	USCDIv1
Updated certification criteria and associated product	170.315 (b)(1), 170.315 (b)(2), 170.315 (e)(1), 170.315 (g)(6), 170.315 (g)(9) for Crystal Practice Management 6.0
Health IT Module CHPL ID	15.04.04.1030.Crys.06.01.1.221004
Method used for standard update	Certification Attestation
Date of ONC-ACB notification	N/A
Date of customer notification (SVAP only)	N/A (only for SVAP)
Conformance measure	170.315 (b)(1) using ONC Test Procedure 1.1 and Edge Test Tool 2.3.48, 170.315 (b)(2) using ONC Test Procedure 1.2 and Edge Test Tool 2.3.48, 170.315 (e)(1) using ONC Test Procedure 1.4 and Edge Test Tool 2.3.48, 170.315 (g)(6) using ONC Test Procedure 1.1, 170.315 (g)(9) using ONC Test Procedure 1.2 and Edge Test Tool 2.3.48
USCDI-updated certification criteria (and USCDI version)	170.315 (b)(1), 170.315 (b)(2), 170.315 (e)(1), 170.315 (g)(6), 170.315 (g)(9) for USCDIv1



Care Settings

We conducted Real World Testing with practices that are optometry based.



Relied Upon Software

Rosetta Health HISP

In order to meet the certification criterion for electronic exchange of health information using the Direct Project protocol, we relied on the services of Rosetta as our HISP. Rosetta provided us with the necessary infrastructure to enable secure and reliable health information exchange between our EHR system and external recipients.

During the Real World Testing process, we used Rosetta's services to transmit Direct messages containing patient health information to external recipients, such as other healthcare providers or patients. We also received Direct messages from external sources, which were transmitted through Rosetta's infrastructure and securely integrated into our EHR system.

Metrics and Outcomes

Measurement / Metric	Associated Criterion(a)	Relied Upon Software (if applicable)	Outcomes	Challenges Encountered (if applicable)
RWT Measure #1: Number of Transition of Care C-CDAs successfully sent	315(b)(1), 315(h)(1)	Rosetta Health as HISP	For 2024, 2,842 practices submitted analytics, 16 practices sent transition of care C-CDAs, and those practices sent a total of 136 transition of care C-CDAs for 125 unique patients	
RWT Measure #2: Number of C-CDAs Received and/or Incorporated	315(b)(1), (b)(2), (h)(1)	Rosetta Health as HISP	For 2024, 2,842 practices submitted analytics, 12 practices received C-CDAs over Direct Messaging, and those practices received a total of 1,103 C-CDAs over Direct Messaging, 8 practices incorporated C-CDAs, and those practices incorporated a total of 34 C-CDAs	
RWT Measure #3:	315(e)(1)	Rosetta Health	For 2024, 2,878	



Crystal

Practice Management

Number of Patients Given Access to Portal		as HISP	practices submitted analytics, 1,674 of those practices gave patients access to the patient portal, and those practices gave 620,661 patients access to the patient portal, 51 practices gave patients' authorized users access to the patient portal, and those practices gave an authorized user patient portal access for 184 patients	
RWT Measure #4: Number of Direct Messages Successfully Sent	315(h)(1)	Rosetta Health as HISP	For 2024, 2,878 practices submitted analytics, 15 of those practices successfully sent Direct Messages, and those practices sent 658 Direct Messages	
RWT Measure #5: Number of Patient Batch Exports Run	315(b)(6)		For 2024, 34 practices submitted analytics for this measure because they performed a Patient Batch	



			Export, and those practices performed one Patient Batch Export 64 times in total	
RWT Measure #6: Number of Quality Measures Successfully Reported on to CMS	315(c)(1)-(c) (3)		For 2024, based on our analytics and surveys, 64 practices exported a QRDA Cat 3 CCD and attested for MIPS with it. The following number of practices attested using the following measures: Cqm50: 62 Cqm138: 62 Cqm68: 64 Cqm131: 64 Cqm142: 62 Cqm143: 63 Cqm165: 36 Cqm69: 16 Cqm122: 8 Cqm155: 14	
RWT Measure #7: Number of IIS/Immunization Registries Connected with our EHR	315(f)(1)		During production testing, 341 offices responded, and 2 indicated that	Addressed in "Deviations From Original RWT Plan"



			they were connected with an immunization registry. In synthetic testing, we created 10 immunization messages using synthetic patient data from 2 mock offices. All 10 messages were successfully validated using the NIST HL7 v2 Immunization Test Suite (version 1.9.13) to confirm they met the required format and data standards.	
RWT Measure #8. Number of 3rd Party Applications Registered and Authorized to use FHIR API to Access Patient Data	315(g)(7), (g)(9), (g)(10)		During production testing, 341 offices responded to our survey, and none indicated that they were using or had registered a third-party application with the FHIR API. To	Addressed in "Deviations From Original RWT Plan"



Crystal

Practice Management

			<p>address this, we conducted synthetic testing using the ONC Certification (g) (10) Standardized API Test Kit, Inferno (version 7.0.3). We registered two mock third-party applications with the FHIR API. Both applications successfully authenticated and retrieved synthetic patient data, demonstrating that the FHIR API meets the required functionality and interoperability standards, even in the absence of real-world usage.</p>	
<p>RWT Measure #9: How many different HIEs/HINs are connected with our EHR</p>	<p>315(h)(1)</p>	<p>Rosetta Health as HISP</p>	<p>6 practices are integrated with KHIE (Kentucky), 14 practices are integrated with OneHealthPort (Washington State)</p>	



Deviations From Original RWT Plan

RWT Measure #7: Number of IIS/Immunization Registries Connected with our HER – 315(f)(1)

During Real World Testing, we found that our system couldn't automatically track which users were connecting to immunization registries due to missing telemetry features in Crystal Practice Management. Instead, we used a customer survey to estimate how often this functionality was being used.

To back up the survey results, we also ran synthetic tests in a mirrored production environment. In these tests, we created a mock immunization registry and submitted 10 test messages from 2 simulated offices. All 10 messages were successfully processed without any issues.

While this approach differs from our original plan, which relied on automated tracking, the synthetic testing allows us to provide meaningful results and confirm compliance with the requirements for 315(f)(1).

RWT Measure #8. Number of 3rd Party Applications Registered and Authorized to use FHIR API to Access Patient Data – 315(g)(7), (g)(9), and (g)(10)

During the Real World Testing process, we identified an issue with the telemetry functionality in our FHIR API application, which was used for criteria g.7, g.9, and g.10. While we could determine which customers were using the FHIR API, the system did not include telemetry to track whether those customers were integrating with third-party applications or transmitting data through the API.

As a result, we were unable to rely on reporting or logging to collect usage metrics for these criteria. To address this, we conducted synthetic testing to evaluate the FHIR API's functionality. In these tests, we registered two mock third-party applications, which successfully authenticated and retrieved synthetic patient data, confirming that the FHIR API supports integration and data exchange as required.

While this approach deviates from our original plan, it ensures compliance with criteria g.7, g.9, and g.10 and demonstrates the FHIR API's interoperability capabilities in the absence of detailed telemetry data.



Key Milestones

Key Milestone	Care Setting	Date/Timeframe
Submitted 2024 Real World Test Plan to Drummond Group (ACB)		October 31 st , 2023
Began collecting data automatically with background tasks and manually through customer surveys in the Crystal Practice Management software	Ambulatory – Optometry	December 2023 – January 9th, 2025
Submitted 2024 Real World Test results to Drummond Group (ACB)		January 9th, 2025