



CY 2022 Real World Testing Plan for Meridian Medical Management

Executive Summary

This is the real world test plan for CY 2022 for Meridian Medical Management's VertexDr 9.1 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 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 2022, 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.

Authorized Representative Name: Angelo Perrotta

Authorized Representative Email: angelo.perrotta@m3meridian.com

Authorized Representative Phone: 860-925-6300

Authorized Representative Signature: *Angelo Perrotta*

DATE: 10/19/2021



MERIDIAN
MEDICAL MANAGEMENT

Table of Contents

Executive Summary	1
Developer Attestation	2
General Information	4
Timeline and Milestones for Real-World Testing CY 2022.....	5
Real World Testing Measurements.....	7
RWT Measure #1. Transition of Care C-CDAs Functionality	9
RWT Measure #2. Incorporation and Updating of Medication List, Problem List, Allergy List.....	11
RWT Measure #3. Number of NewRx Prescriptions Messages Successfully Sent ...	13
RWT Measure #4. Batch Patient Data Export	14
RWT Measure #5. Number of Quality Measures Successfully Reported on to CMS.	15
RWT Measure #6. Patient Portal Use	17
RWT Measure #7. Transmission to immunization registries	19
RWT Measure #8. Transmission to Public Health Agencies - Reportable Laboratory Tests and Values/Results	21
RWT Measure #9. Compliance of API Resource Query Support.....	22



General Information

Plan Report ID Number:

Developer Name: Meridian Medical Management

Product Name(s): VertexDr

Version Numbers(s): 9.1

Certified Health IT Criteria: 315(b)(1), (2), (3), (6); (c)(1)-(c)(3); (e)(1); (f)(1), (f)(3); (g)(7)-(9); Product List (CHPL) ID(s) and Link(s):

- 9.1
15.04.04.2112.Vert.09.00.1.181001

<https://chpl.healthit.gov/#/listing/9694>

Developer Real-World Testing Page URL:



MERIDIAN
MEDICAL MANAGEMENT

Timeline and Milestones for Real-World Testing CY 2022

- 1Q-2022: 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-2022.
- 2Q-3Q 2022. During the 2nd and 3rd quarter of CY 2022, 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-2022. During the last quarter of the year, the CY 2023 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)

For CY 2022, we are not planning to make any version updates on approved standards through the SVAP process.

Standard (and version)	None
Updated certification criteria and associated product	N/A
Health IT Module CHPL ID	N/A
Method used for standard update	N/A
Date of ONC-ACB notification	N/A
Date of customer notification (SVAP only)	N/A
Conformance measure	N/A
USCDI-updated certification criteria (and USCDI version)	N/A



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.

Survey: This methodology evaluates interoperability and compliance of EHR Module capabilities through feedback from users. This methodology can provide insight into how clinicians employ and use a feature which reveals actual value and impact of interoperability of the EHR Module.

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

VertexDr is primarily targeted to general ambulatory practices covering a variety of care settings including orthopedics, primary care, dermatology, cardiology, neurology, OBGYN, ENT, pulmonology, pediatrics, and multispecialty. However, they all utilize our ONC certified capabilities common methods associated with ambulatory care. Our measures were design for these ambulatory settings 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.



MERIDIAN
MEDICAL MANAGEMENT

RWT Measure #1. Transition of Care C-CDAs Functionality

Associated Criteria: 315(b)(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 to a 3rd party during a transition of care event using Direct messaging during a transition of care event over a given interval.

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.

Measurement Expected Outcome

This measure will track number of C-CDA files sent electronically via HISP.

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.

We will report the numbers of C-CDAs sent over a three (3) month period

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. 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 general ambulatory sites that we support and target. We will test a minimum of three (3) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.



MERIDIAN
MEDICAL MANAGEMENT

RWT Measure #2. Incorporation and Updating of Medication List, Problem List, Allergy List

Associated Criteria: 315(b)(2)

Testing Methodology: Report/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 time frame.

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 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 a HISP for successful transmission.

Measurement Expected Outcome

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

If any errors or very low numeric counts are encountered, we will investigate further.

We will capture this information from our system over a period of a minimum of three (3) months to provide an accurate sample of real world interoperability. 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 general ambulatory sites that we support and target. We will test a minimum of three (3) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.



MERIDIAN
MEDICAL MANAGEMENT

RWT Measure #3. Number of NewRx Prescriptions Messages Successfully Sent

Associated Criteria: 315(b)(3)

Testing Methodology: Reporting/Logging

Measurement Description

This measure is tracking and counting how many NewRx electronic prescriptions were created and successfully sent from the EHR Module to a pharmacy destination over the course of a given interval.

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 NewRx SCRIPT electronic prescription message and transmit it to a pharmacy via the Surescripts Network.

Measurement Expected Outcome

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

A successful measure increment indicates compliance to the underlying ONC criteria. It will show that the EHR can create the NewRx message and send over a production Surescripts network to a pharmacy. 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 general ambulatory sites that we support and target. We will test a minimum of three (3) 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 #4. Batch Patient Data Export

Associated Criteria: 315(b)(6)

Testing Methodology: Survey/Self-Test

Measurement Description

This is a survey measure to determine how often you are using the batch patient data export feature.

Measurement Justification

We do not know how many of our customers are actually using the batch patient exporting so we believe the best means to evaluate real world interoperability is to survey them on this criteria use. This measure will survey users to determine real-world interoperability and usability, specifically how often do clinicians use the batch patient export feature.

A survey or self-testing can often provide more information on the impact and value of an interoperability element than a standard software test evaluation. Batch patient export can be used for various use cases, including support for loading a HIE or registry as well as quality and population health metrics.

Measurement Expected Outcome

The user will be asked the survey question of how often do you perform the batch patient export during the average month and given the survey answer choices below:

- Regularly
- Never
- Don't Know

The answer will provide insight into how clinicians view both the use and value of this interoperability feature. For example, response 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 designed this measure to test general ambulatory sites that we support and target. We will test a minimum of three (3) 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 #5. Number of Quality Measures Successfully Reported on to CMS

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

Testing Methodology: Reporting/Survey

Measurement Description

This measure is tracking and counting how many eCQM quality measures were successfully reported on by the EHR Module to CMS during their submission period for MIPS Quality reporting.

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 ask our customer users to report on the number eCQMs they successfully reported on to CMS which reveals compliance to the associated criteria listed above. 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.

If the clients we use to measure this module choose to submit their CQMs in a different way (IE a registry) we will submit a survey to the client inquiring about their success in measuring their chosen CQMs.

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 general ambulatory sites that we support and target. We will test a minimum of three (3) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.



MERIDIAN
MEDICAL MANAGEMENT

RWT Measure #6. Patient Portal Use

Associated Criteria: 315(e)(1)

Testing Methodology: Reporting

Measurement Description

This use case is tracking and counting how patients are given access to their portal account over the course of a given interval.

Measurement Justification

This use case 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 new patient portal account and give the patient access to it.

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.

We will track the number of patients who logged into the portal, and contrast that with the patients seen by the respective providers during that same time.

We will capture this information from our system over a period of a minimum of three (3) months to provide an accurate sample of real world interoperability.

A successful measure increment indicates compliance to the underlying ONC criteria. It will show that patients can log into their patient portal to view, download, or transmit their health 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 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 general ambulatory sites that we support and



target. We will test a minimum of three (3) client practice(s). This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.



MERIDIAN
MEDICAL MANAGEMENT

RWT Measure #7. Transmission to immunization registries

Associated Criteria: 315(f)(1)

Testing Methodology: Reporting/Logging

Measurement Description

This measure is tracking and counting how many immunization messages are created and successfully sent from the EHR Module to an IIS/immunization registry over the course of a given interval.

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 an immunization message, including ability to record all clinical data elements, and by sending the message, the EHR demonstrates successful interoperability with an IIS/immunization registry

Measurement Expected Outcome

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

We will capture this information from our system over a period of a minimum of three (3) months to provide an accurate sample of real world interoperability

A successful measure increment indicates compliance to the underlying ONC criteria. It will show that the EHR can 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 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 primarily for our pediatrics practices we serve as they are the only ones who regularly use immunization functionality. We will test client practices utilizing this functionality.



MERIDIAN
MEDICAL MANAGEMENT

RWT Measure #8. Transmission to Public Health Agencies - Reportable Laboratory Tests and Values/Results

Associated Criteria: 315(f)(3)

Testing Methodology: Reporting/Logging

Measurement Description

This measure is tracking compliance of the EHR module to support submission of data to public health agencies.

Measurement Justification

While the software does have the capability to report to outside registries for both labs as well as problem lists, to date we have not been asked to set up a real world connection to any such agency. As a result, we will conduct internal testing to ensure compliance.

Measurement Expected Outcome

Expected outcome will be measured in the capability to send formatted HL7 messages containing data pertaining to labs and diagnosed problems.

Care Settings and Number of Clients Site to Test

All testing for this measure will be performed internally using test databases.



RWT Measure #9. Compliance of API Resource Query Support

Associated Criteria: 315(g)(7)-(g) (9)

Testing Methodology: Compliance and Tool

Measurement Description

This measure is tracking compliance of the EHR Module criteria functionality of support of API query of patient data resources.

Measurement Justification

Because our API is not actively being used by clients, we will conduct real world testing by verifying the functionality that is available in production is still compliant with ONC requirements.

This measure will provide assurance of compliance to the EHR Module criteria, specifically ability to connect to the EHR's API resources and query patient clinical data through the API. This measure will also query the patient's C-CDA through the API and evaluate it against the <https://site.healthit.gov/scorecard/>. The C-CDA scorecard is designed for production use and measures how artifacts created by health IT compare against the HL7 C-CDA implementation guide and HL7 best practices

To avoid disclosing PHI, we will only work with test patients from the actual production environment or an appropriately production-mirrored environments to best evaluate production capabilities available to end users.

Measurement Expected Outcome

The user connects to the EHR through a client application via the API and is prompted for credentials and authentication according to the EHR's publicly available API documented specification. After supplying the correct credentials, the EHR returns a valid ID or token for the API Client to access the patient data. The user will query the patient clinical data resources via the API and receive access to them through the client application. Next, the user will query the C-CDA of the patient record and will run C-CDA through the Scorecard tool to obtain a result. We will also confirm the process and steps done by the user meet the criteria requirements of the EHR Module and works as expected in production as in a controlled test environment.

Care Settings and Number of Clients Site to Test



MERIDIAN
MEDICAL MANAGEMENT

This measure is applicable to all our targeted practice settings as the API capabilities work the same for all sites. Because this feature is not regularly used by our clients, we will test this capability in production-type system either with a physician client who is able or internally. We believe this method will verify certified functionality is working for end users.



MERIDIAN
MEDICAL MANAGEMENT