DB Consultants, Inc.

CY 2022 Real World Testing Plan for Chiro QuickCharts

Executive Summary

This is the real world test plan for CY 2022 for DB Consultants Inc's Chiro QuickCharts 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.

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General Information

Plan Report ID Number:	CQC_RWT_2022
Developer Name:	DB Consultants, Inc.
Product Name(s):	Chiro QuickCharts
Version Numbers(s):	3
Certified Health IT Criteria:	315(b)(1), (b)(2), (b)(6); (c)(1)-(3); (g)(7)-(9); (h)(1)

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

- 15.04.04.3064.ChQC.03.00.1.191227
- https://chpl.healthit.gov/#/listing/10269

Developer Real World Testing Page URL: https://dbconsultants.com/certification-details/

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) Updates

For CY 2022, we are not planning to make any version updates on approved standards through the SVAP process. We plan on implementing USCDI v1 in our C-CDAs and API support during CY 2022, but we have not finalized an exact date for rollout.

Standard (and version)	N/A
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.

Compliance and/or Tool: This methodology uses inspection to evaluate if EHR is compliant to the ONC criteria requirements. It can be done through 1-v-1 inspection testing or utilize various tools to measure or evaluate compliance and interoperability. If an EHR Module capabilities is not widely used in production by current users, compliance inspection can provide assurance criteria is working as previously certified.

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 chiropractic practices, 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. Transition of Care C-CDAs Functionality

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

Testing Methodology: Reporting and Compliance

Measurement Description

This use case is tracking how many C-CDAs are created and successfully sent from the EHR Module to a 3rd party during a transition of care event over the course of a given time interval as well as performance of the C-CDA creation capability and error detection.

Measurement Justification

This use case has three measure captures.

The first 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, so it covers both the 315(b)(1) and 315(h)(1) criteria.

The second measure will provide assurance of compliance to the EHR Module criteria, specifically ability to create a C-CDA and evaluate it against the ONC C-CDA Scorecard tool. 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.

The Scorecard will both indicate any C-CDA errors as well provide a numeric scoring result to indicate how well our C-CDA complies with certification requirements and supports interoperability within production setting.

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.

The third measure is evaluating the C-CDA error detection capabilities. This will verify the ability of the EHR to detect any errors in received C-CDAs. C-CDA error detection is a critical component of EHRs, and we will conduct an inspection test to confirm this functionality is working in our EHR.

Measurement Expected Outcome

We will contact a sample of our user base to get reporting values on C-CDAs sent as well as performance of C-CDA error detection.

Measure #1.1: Report the numbers of C-CDAs sent over a three (3) month period.

This metric can come from different reports, including Automated Measure (315.g.2) reports. A successful measure increment indicates compliance to the underlying ONC criteria, including successful creation of the C-CDA patient summary record and recording the 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.

Measure #1.2: C-CDA Scorecard Check. The user will have the EHR create C-CDA from a patient record containing clinical data elements required in the criteria. We 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.

A high score from the Scorecard indicates strong support for interoperability, and a lower score indicates opportunity for improvement. We will use this measure to establish a historic baseline of expected interoperability use so it can be used in subsequent real world testing efforts.

Measure #1.3: C-CDA Error Detection. The user will import in, either through upload or inbound messages, C-CDAs with different known errors. The user will use the EHR functions to parse the C-CDA document and perform errors detection which will be reviewed by the user. We will confirm the process and steps done by the user meet the criteria requirements of the EHR Module and works as expected in production-type environment.

Care Settings and Number of Clients Site to Test

We designed this use case to test the chiropractic sites that we support and target. We will test a minimum of two (2) client practice(s) for Measure #1.1. This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs. Measure #1.2 and Measure #1.3 will be tested either with an available client or using internal resources on a production-type system.

RWT Measure #2. C-CDAs Received and/or Incorporated

Associated Criteria: 315(b)(2)

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 time 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 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 interval of three (3) months. We will utilize various reports and audit logs, including Automated Measure (315.g.2) 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 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 chiropractic sites that we support and target. We will test a minimum of two (2) 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 #3. Patient Batch Exports

Associated Criteria: 315(b)(6)

Testing Methodology: Reporting/Logging

Measurement Description

This use case is tracking and counting how many batch exports of C-CDAs were successfully performed by the EHR Module over the course of a given time interval as well as performance of the C-CDA creation capability.

Measurement Justification

This use case has two different measurements of interoperability.

The first 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.

The second measure will provide assurance of compliance to the EHR Module criteria, specifically ability to create a C-CDA and evaluate it against the ONC C-CDA Scorecard tool. 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.

The Scorecard will both indicate any C-CDA errors as well provide a numeric scoring result to indicate how well our C-CDA complies with certification requirements and supports interoperability within production setting.

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

Measure #3.1: Number of batch exports executed. The measurement will produce numeric results over a given interval of three (3) months. We will utilize various reports and audit logs 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.

Measure #3.2: C-CDA Scorecard Check. The user will have the EHR create C-CDA from a patient record containing clinical data elements required in the criteria. We 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.

A high score from the Scorecard indicates strong support for interoperability, and a lower score indicates opportunity for improvement. We will use this measure 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 use case to test the chiropractic sites that we support and target. We will test a minimum of two (2) client practice(s) for Measure #3.1. This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs. Measure #3.2 will be tested either with an available client or using internal resources on a production-type system.

RWT Measure #4. Quality Measures Successfully Reported on to CMS

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

Testing Methodology: Reporting/Self-Reporting

Measurement Description

This measure is tracking and counting how many eCQM quality measures were successfully reported on by the EHR Module to CMS for the most recent CMS quality submission.

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 and audit logs 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 chiropractic sites that we support and target. We will test a minimum of two (2) 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. API Functionality

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

Testing Methodology: Reporting/Compliance

Measurement Description

This use case is tracking and counting how many successful API queries of patient data elements from the EHR Module to a 3rd party via API over the course of a given time interval as well as general compliance to the criteria requirements.

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 a 3rd party can query the clinical resources of the patient health record via the API interface and thus demonstrate API interoperability.

However, as we are not sure if any of our clients are using the API functionality, we will also do a compliance test of interoperability. 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 ONC C-CDA Scorecard tool. 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.

Because API criteria, 315(g)(7)-(g)(9), all work collectively together in the API functionality of the EHR Module, this measurement is used for all three.

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

Measure #5.1: API usage. The measurement will produce numeric results over a given interval. We will utilize various reports and audit logs, to determine our measure count.

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 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.

Measure #5.2: API functionality compliance. 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

We designed this use case to test the chiropractic sites that we support and target. We will test a minimum of two (2) client practice(s) for Measure #5.1. This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs. Measure #5.2 will be tested either with an available client or using internal resources on a production-type system.