Rhapsody Integration Engine - Real World Test Plan 2023

General Information

Developer Name: Rhapsody
Product Name: Rhapsody Integration Engine
Version Numbers: 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10
Certified Health IT Product List (CHPL) ID(s): 170.315(f)(1), 315(f)(2), 315(f)(3), 315(f)(4), 315(f)(5), 315(f)(6), 315(f)(7)
Developer Real World Testing Page URL:
https://rhapsody.health/onc-compliance/

Justification for Real World Testing Approach

This document describes the plan to be used by Rhapsody to perform Real World Testing of the Rhapsody Integration Engine against certification criteria 170.315(f)(1) through to, and including, 170.315(f)(7).

The overall approach will include identifying clients in care setting scenarios which will allow us to appropriately perform Real World Testing against the certification criteria. Once clients have been identified, testing will be conducted throughout the year, with the data gathered being used to formulate a final test report in the last quarter of the year.

As the criteria being tested are all generally around the creation and transmission of messages, the measurements will also be centered around both message creation and transmission. The first measurement will be a rate measurement for the successful creation of messages. The creation of messages via standard HL7 schemas will demonstrate conformance. The second measurement will be a rate measurement for the successful transmission of messages. The acceptance of messages by a downstream system will demonstrate that transmission is taking place.

In order to demonstrate ongoing testing for each certification criteria, a minimum sample size of at least 100 messages will be required to be collected over one data collection period. There will then be three such collections of data across the total period where testing is conducted. The collection of this much data, at differing points through the collection period will demonstrate ongoing success and adherence to the criteria.

Rhapsody Integration Engine is not marketed to a specific care setting. Rather, it often connects to a variety of settings from a central position in a hospital or healthcare network. However, as the certification criteria are for certain care settings only, namely Inpatient and Ambulatory, the testing will be conducted with clients whose engines connect to such settings.

The expected outcome of testing is that the rate measurement, for both creation and transmission, shows a 95% or better success rate across all collected data for each tested certification criteria.

In total, this Real World Testing will demonstrate the continued compliance of the Rhapsody Integration Engine to certification criteria 170.315(f)(1) through to 170.315(f)(7).

Standards Updates

Includes standards version advancement process (SVAP) and United States Core Data for Interoperability (USCDI)

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	N/A
(SVAP only) Conformance measure	N/A
USCDI updated certification criteria (and USCDI version)	N/A

Measures Used in Overall Approach

Description of Measurement / Metric

The following table describes the measurements being used. Note that justifications for these measurements are described further down in this section.

Measurement / Metric	**Description**
Rate of successful creation of messages. Target sample size per collection event: The target sample size is at least 100 messages. This will determine the timespan of a collection event. Timespan: 1* day period x 3 collection events * Note: Volume of messages will be considered for the timespan. For sites where volume of data for a specific message type is greater than per day, a single	This measurement will look at the success rate of the creation of messages (as created from standard HL7 schemas). Failures may either occur due to issues with up-stream systems (e.g., not sending enough data, or incorrect data), or failures of the integration engine after correct data has been received. Only the latter will count towards the total.

collection would take place over 1 day. For sites where volume of data for a specific message type is less than 100 per day, the collection will take place over a longer time period in order to achieve the minimum sample size (e.g. it may take up to a week to achieve a sample size of 100 messages). If collecting the minimum sample size is not possible for certain criteria, it will be noted, and a smaller sample size decided on.	
Rate of successful transmission of messages. Target sample size per collection event: The target sample size is at least 100 messages. This will determine the timespan of a collection event. Timespan: 1* day period x 3 collection events * Note: Volume of messages will be considered for the timespan. For sites where volume of data for a specific message type is greater than 100 per day, a single collection would take place over 1 day. For sites where volume of data for a specific message type is less than 100 per day, the collection will take place over a longer time period in order to achieve the minimum sample size (e.g. it may take up to a week to achieve a sample size of 100 messages). If collecting the minimum sample size is not possible for certain criteria, it will be	This measurement will look at the success rate of the transmission of messages to downstream systems. Failures due to connection issues, or system issues unrelated to the message will be discounted. Only data-related failures will be considered and counted towards this total.

noted, and a smaller sample size decided on.	

Associated Criteria and Measurements Used

Criteria	Measurement used
170.315 (f)(1): Transmission to Immunization Registries	1. Rate of successful creation of messages. 2. Rate of successful transmission of messages.
170.315 (f)(2): Transmission to Public Health Agencies - Syndromic Surveillance	1. Rate of successful creation of messages. 2. Rate of successful transmission of messages.
170.315 (f)(3): Transmission to Public Health Agencies - Reportable Laboratory Tests and Values/Results	1. Rate of successful creation of messages. 2. Rate of successful transmission of messages.
170.315 (f)(4): Transmission to Cancer Registries	Rate of successful creation of messages.
170.315 (f)(5): Transmission to Public Health Agencies - Electronic Case Reporting	Rate of successful creation of messages.
170.315 (f)(6): Transmission to Public Health Agencies - Antimicrobial Use and Resistance Reporting	Rate of successful creation of messages.
170.315 (f)(7): Transmission to Public Health Agencies - Health Care Surveys	Rate of successful creation of messages.

Justification for Selected Measurement/Metric

Measurement / Metric	Justification
Rate of successful creation of messages. Target sample size per collection event: The target sample size is at least 100 messages. This will determine the timespan of a collection event. Timespan: 1* day period x 3 collection events * Note: Volume of messages will be considered for the timespan.	*Why message creation?* All (f) criteria have a message creation component. In Rhapsody, the creation of HL7 v2 and CDA messages is most commonly done via the use of schemas. The schemas for HL7 v2 messages are provided by Rhapsody and are created directly from the specifications provided by HL7 (the organization). The schemas for CDA messages are downloaded by the user directly from HL7 (the organization).

For sites where volume of data for a specific message type is greater than 100 per day, a single collection would take place over 1 day. For sites where volume of data for a specific message type is less than 100 per day, the collection will take place over a longer time period in order to achieve the minimum sample size (e.g. it may take up to a week to achieve a sample size of 100 messages). If collecting the minimum sample size is not possible for certain criteria, it will be noted, and a smaller sample size decided on.	As such, the creation of the message using HL7 schema is enough to signal conformance. *Why rate?* For Real World Testing, the ongoing successful creation of messages needs to be demonstrated. In order to compare success and failure over a time period, we have chosen to use a rate measurement. The rate will be successful message creation compared to failed message creation. *Why the chosen timespan?* A sample size of (minimum) 100 messages will be enough to demonstrate working functionality. In a high message volume environment, this sample size collected over 1 day may be much higher. There will then be three such collection events, which will mean a minimum of 300 messages created.
Rate of successful transmission of messages Target sample size per collection event: The target sample size is at least 100 messages. This will determine the timespan of a collection event. Timespan: 1* day period x 3 collection events * Note: Volume of messages will be considered for the timespan. For sites where volume of data for a specific message type is greater than 100 per day, a single collection would take place over 1 day. For sites where volume of data for a specific message type is less than 100 per day, the collection will take place over a longer time period in order to achieve the minimum sample size (e.g. it may take up to a week to achieve a sample size of 100 messages). If collecting the minimum sample size is not possible for certain criteria, it will be noted, and a smaller sample size decided on.	*Why message transmission?* Some (f) criteria have a message transmission component. After the successful creation of a message, the receipt of a positive acknowledgement will show that the downstream system has accepted the message. *Why rate?* For Real World Testing, the ongoing successful transmission of messages needs to be demonstrated. In order to compare success and failure over a time period, we have chosen to use a rate measurement. The rate will be successful message transmission compared to failed message creation. *Why the chosen timespan?* A sample size of (minimum) 100 messages will be enough to demonstrate working functionality. In a high message volume environment, this sample size collected over 1 day may be much higher. There will then be three such collection events, which will mean a minimum of 300 messages created.

Care Settings

Rhapsody Integration Engine is not marketed directly to any specific care setting. Rather, it is marketed to hospitals or healthcare networks. From its position in a hospital or healthcare network solution, it will often connect to (or be a part of) a variety of different care settings.

The following table shows the care settings where Real World Testing will be performed.

Care Setting	**Justification**
Inpatient	The type of messages covered by 170.315 (f) criteria is commonly used in the Inpatient care setting. We believe that most hospitals and healthcare network solutions have this care setting, and tests involving the corresponding message types will be representative of a large group of existing and future clients. The criteria covered will be: 170.315 (f)(1), (2), (3), (5) and (6) criteria.
Ambulatory	The Ambulatory care setting will be one of the care settings tested in because a number of the (f) criteria are specifically for this care setting. We believe that most hospitals and healthcare network solutions have this care setting, and tests involving the corresponding message types will be representative of a large group of existing and future clients. The criteria covered will be: 170.315 (f)(1), (2), (4), (5), and (7) criteria

Expected Outcomes

Measurement / Metric	**Expected Outcomes**
Rate of successful creation of messages.	It is expected that there will be at least 100 messages in each of three periods of collection that have been processed by Rhapsody. The success rate of messages is expected to be 95%

	or better - this will demonstrate individual criterion functionality. This will be applicable for 170.315(f)(1), 315(f)(2), 315(f)(3), 315(f)(4), 315(f)(5), 315(f)(6), 315(f)(7).
Rate of successful transmission of messages	It is expected that there will be at least 100 messages in each of three periods of collection that have been processed by Rhapsody. The success rate of messages is expected to be 95% or better - this will demonstrate adherence to transmission criterion. This will be applicable for 170.315(f)(1), 315(f)(2), 315(f)(3).

Schedule of Key Milestones

Key Milestone	**Date / Timeframe**
Find Real World Testing partners. *For this milestone, we will begin to identify clients who have implemented the necessary scenarios required for Real World Testing.* *We will conduct interviews and examination of client configuration to ensure they can meet the tested criteria.* *Once identified, we will request their participation as a testing partner for the relevant criteria and schedule the testing.*	January – March 2023
Conduct testing. *At the agreed-upon test times, we will work with testing partners to collect the raw data. False negatives can be identified at this stage. Processing of the raw data into reportable forms will also begin.*	April - August 2023
Completion of test report. *The completed report will be submitted to Drummond Group.*	October 2023

Attestation

The Real World Testing plan must include the following attestation signed by the health IT developer authorized representative.

Note: The plan must be approved by a health IT developer authorized representative capable of binding the health IT developer for execution of the plan and include the representative's contact information.

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:

Sameer Sule

Authorized Representative Email:

Sameer.sule@rhapsody.health

Authorized Representative Phone:

972-942-0270

Authorized Representative Signature:

Sameer Sule

Date:

11/02/2022