2025 Real World Test Plan

General Information
Plan Report ID Number: [For ONC-Authorized Certification Body use only]
Developer Name: Raintree Systems
Product Name(s): Raintree
Version Number(s): 10.2.500
Certified Health IT Product List (CHPL) ID(s): 15.04.04.2841.Rain.10.01.1.221206
Developer CEHRT Product Listing Page URL: https://chpl.healthit.gov/#/listing/11050
Raintree Certification and Real World Testing Page URL: https://www.raintreeinc.com/certified-health-it-product-certification/

Overall Justification of Real World Testing Approach:

Raintree's plan for Real World Testing of our application and usage by our customers has been driven by the customization and integration of our third-party software partners. This plan is a detailed document that describes the test strategy, objectives, schedule, estimation and deliverables, and resources needed for testing. This plan will help us determine the effectiveness of our deployed application across various customer domains and will help us identify areas that should require additional testing, monitoring and controlled testing.

The following portion of this test plan outlines the measures used in conducting testing of our deployed certification criteria in real working environments. Each measure is described in detail with associated certification requirements, justification, applicable care setting(s), test methodology, and expected outcome(s) or results.

Measures Used

The following outlines the measures that have been identified to best demonstrate conformance to multiple certification criteria concerning the exchange of data across various customer use experiences.

- § 170.315(b)(1) - Transitions of care
- § 170.315(b)(2) - Clinical information reconciliation and incorporation
- § 170.315(b)(10) - Data Export
- § 170.315(e)(1) - View, download and transmit

Measure 1: Facilitate transitions of care

The following associated criterion will be used to demonstrate conformance with sending and receiving patient care documents and/or referral summaries.

Certification Criteria	Relied Upon Software	Requirement
§ 170.315(b)(1) Transitions of care	**Direct Messaging (Kno2)**	(i)(A) Send transition of care/referral summaries
		(i)(B) Receive transition of care/referral summaries
§ 170.315(b)(2) - Clinical information reconciliation and incorporation	**Direct Messaging (Kno2)**	

Justification: Successful transmission of patient care information from one clinician to another alleviates gaps in care. Having relevant patient information available when a patient transitions to another service or care team

Care Setting(s): Medical speciality category includes: Rheumatology, Pain Management, Podiatry, Pediatrics, Behavioral Health, and Primary Care. Therapy speciality category includes: Adult and Pediatric physical, occupational, and speech-language therapy.

Test Methodology: Quarterly review of the transitions of care Promoting Interoperability report to ensure customers are able to successfully transmit (send and receive) patient care information. Errors in transmission will be further reviewed and next steps identified.

Expected Outcome(s): It is expected that a patient's transition in care documents and/or referral summaries are successfully transmitted by both the sending and receiving clinicians or care team.

Measure 2: Patient access to Personal Health Information

The following associated criteria will be used to demonstrate the compliance of appropriate and timely sharing of patient information. In addition, we will measure the conformance to this criteria overall.

Certification Criteria	Requirement
§ 170.315(e)(1) View, download and transmit	(i)(A)(1) Patients (and their authorized representatives) must be able to use health IT to view defined clinical data classes and sets
	(i)(B)(2) Download ambulatory summary or inpatient summary using CCD Template
	(i)(C)(1) Transmit to third party

Justification: Raintree clinicians can directly exchange patient information - easily and securely - such as lab reports and orders, patient referrals, and discharge summaries - directly with another healthcare professional or with patients using the Raintree web client and Patient Dashboard features. Seamless transaction of this information is necessary to reduce duplication of tests, redundant collection of patient information, and medication errors. This metric will provide information on the types of transmissions deployed (e.g., what types of Edge protocols, downloads and unencrypted vs. encrypted transmission) and the frequency of usages.

Care Setting(s): Medical speciality category includes: Rheumatology, Pain Management, Podiatry, Pediatrics, Behavioral Health, and Primary Care. Therapy speciality category includes: Adult and Pediatric physical, occupational, and speech-language therapy.

Test Methodology: Log files obtained during Real World Testing will be de-identified and used for analysis in several areas to validate the proper operation of § 170.315(e)(1) "View, download, and transmit."

Expected Outcome(s): It is expected that when a patient obtains access to their Patient Dashboard, they will be able to successfully view ,download locally to their computer, and/or transmit information via encrypted or unencrypted by email transmission. In addition, it is expected that users will be able to exchange patient health information in a timely manner. Errors in transmission will be tracked and analyzed for appropriate next steps.

Measure 3: Data Export

The following associated criterion will be used to demonstrate conformance with data export for both single and population export.

Certification Criteria	Relied upon software	Requirement
§ 170.315(b)(10) – Data Export Single Patient	**MeldRx (Darena)**	(i)(A) Create an export file
		(i)(B) Execute at any time
		(i)(C) Limit ability of users who can create export
		(i)(D) Electronic and computable format
§ 170.315(b)(10) – Data Export	**MeldRx (Darena)**	(ii)(A) Create an export file

Patient Population		

Justification: This approach will allow us to verify the Single Patient & Population Export in a real world production-like (copy of production data and settings) environment with a customer utilizing the capability.

Care Setting(s): Medical speciality category includes: Rheumatology, Pain Management, Podiatry, Pediatrics, Behavioral Health, and Primary Care. Therapy speciality category includes: Adult and Pediatric physical, occupational, and speech-language therapy.

Test Methodology: We will demonstrate successful real world use by coordinating with a customer who is using MeldRx, using a production (live) database copy for testing. Files for single patient and multiple patients will be exported and reviewed.

Expected Outcome(s): It is expected that authorized users will be able to export EHI for a single patient and a population of patients using the export function. Errors will be tracked and analyzed.

Measures Used

The following outlines the measures that have been identified to best demonstrate conformance to § 170.315(b)(3) Electronic Prescribing certification criteria concerning the completeness and accuracy of electronically prescribing medications with third-party software, DoseSpot.

Certification Criteria	Requirement
§ 170.315(b)(3) – Electronic Prescribing	(i)(A) Enable a user to perform the following prescription-related electronic transactions in accordance with the standard specified in § 170.205(b)(1) and, at a minimum, the version of the standard specified in § 170.207(d)(3) as follows: ● Create new prescriptions (NewRx). ● Request and respond to change prescriptions (RxChangeRequest, RxChangeResponse). ● Request and respond to cancel prescriptions (CancelRx, CancelRxResponse). ● Request and respond to renew prescriptions (RxRenewalRequest, RxRenewalResponse). ● Receive fill status notifications (RxFill). ● Request and receive medication history (RxHistoryRequest, RxHistoryResponse).

	• Relay acceptance of a transaction back to the sender (Status). • Respond that there was a problem with the transaction (Error). • Respond that a transaction requesting a return receipt has been received (Verify).

Measure 1: Volume
This measure will quantify the amount of electronic prescriptions that are being generated in Raintree.

Justification: The ability to track volume of electronic prescriptions being generated in customer databases is valuable to measure for several reasons: compliance with promoting interoperability metric under the Merit-Based Incentive Payment System; determining clinic processes and staffing expectations; and ensuring electronic medication records are being created appropriately in system.

Care Setting(s): Medical speciality category includes: Rheumatology, Pain Management, Podiatry, Pediatrics, Behavioral Health, and Primary Care.

Test Methodology: The Promoting Interoperability report will be reviewed for each quarter to determine the frequency of use. The report obtained during Real World Testing will be used for analysis to validate the proper operation of electronic prescribing and test the conformance of the implementation.

Expected Outcome(s): The expectation is that the eRx module is being utilized by our prescribing physicians and providing an accurate count of prescriptions being sent to pharmacies.

Measure 2: Prescription status
This measure will categorize the status of each prescription generated in Raintree into: pending prescriptions; completed electronic prescriptions; printed prescriptions; and electronic prescriptions with errors.

Justification: The ability to see prescription status in real time allows clinicians and clinical staff to validate prescriptions are routed in a timely manner ensuring patients are able to access prescribed medication more consistently.

Care Setting(s): Medical speciality category includes: Rheumatology, Pain Management, Podiatry, Pediatrics, Behavioral Health, and Primary Care.

Test Methodology: The Prescription Status Report will query both controlled and non-controlled medications that are electronically prescribed and categorize based on prescription responses indicated above. Identifying prescription status categories will allow Raintree to identify potential issues or errors in successful electronic prescription transmission. In addition, testing this functionality and capturing metrics will help us develop best practices to share more broadly.

Expected Outcome(s): It is expected that clinicians and clinical staff will be able to review prescription status in a timely manner. Pending prescriptions will be reviewed and completed. Errors in transmission will be tracked and reviewed for best next steps.

Measures Used
The following outlines the measures that have been identified to best demonstrate conformance to multiple

certification criteria concerning the exchange of data across various customer use experiences.

- § 170.315(g)(7) - Application access — patient selection
- § 170.315(g)(8) - Application access — data category request*
- § 170.315(g)(9) – Application access – all data request

Certification Criteria	Requirement
§ 170.315(g)(7) - Application access — patient selection	
§ 170.315(g)(8) - Application access — data category request*	
§ 170.315(g)(9) – Application access – all data request	

Measure 1: Exchange of appointment data

Appointment reminders from Raintree to service provider, Twilio, via webAPI. This is a bidirectional data exchange. Information being sent from Raintree to Twilio is the name and content of the message that should be sent to the patient. The information being sent from Twilio to Raintree is the status of message delivery.

Justification: This metric will aid in identifying: volume of use across customer databases and adoption of functionality after successful deployment, as well as identifying gaps in use.

Care Setting(s): Medical speciality category include: Rheumatology, Pain Management, Podiatry, Pediatrics, Behavioral Health, and Primary Care.

Therapy specialty category include: Physical Therapy, Occupational Therapy, and Speech Therapy.

Test Methodology: The Appointment Reminder Report will be analyzed on a routine basis to show status of appointment reminders sent out to patients. The calculation of this report will identify the volume of text message reminders being sent to patients who have requested an appointment.

Expected Outcome(s): The expectation is that every patient who has requested an appointment will receive a text message reminder with a successful delivery status.

Measure 2: Potential patient records converted to actual patient records

API integration between website forms and Raintree to create Lead Record. We collect # of lead records currently and can see % of lead records converted to patient records.

Justification: Tracking the number of potential patient requests that turn into actual patient appointments is an important aspect of patient management.

Care Setting(s): Medical speciality category includes: Bariatric. Therapy speciality category includes: Adult and Pediatric physical, occupational, and speech-language therapy.

Test Methodology: The Lead to Patient Conversion Report will identify the number of potential (lead) patient records that have been executed in the database and in addition show the number of converted lead records that are now patients with an appointment in the customer's database.

Expected Outcome(s): Our expectation is that upon completion of the patient form on the customer's website, a patient request will be automatically generated, which ultimately results in the reduction of manual entry for office staff that use the new patient records for scheduling, encounter paperwork, etc.

Measures Used

The following measure has been identified to validate conformance to § 170.315(f)(1) - Transmission to immunization registries criterion requirements.

Measure 1:

Conformance to § 170.315(f)(1) - Transmission to immunization registries criterion requirements.

Certification Criteria	Requirement

§ 170.315(f)(1) - Transmission to immunization registries	• Create immunization information for electronic transmission in accordance with:
	  ◦ The standard and applicable implementation specifications specified in §170.205(e)(4).
	  ◦ At a minimum, the version of the standard specified in §170.207(e)(3) for historical vaccines.
	  ◦ At a minimum, the version of the standard specified in §170.207(e)(4) for administered vaccines.
	• Enable a user to request, access, and display a patient's evaluated immunization history and the immunization forecast from an immunization registry in accordance with the standard at §170.205(e)(4).

Justification: At a minimum, this measure will validate successful and secure transfer of patient health information by form of immunization records from one provider or care entity to a public health registry.

Care Setting(s): Medical speciality category includes: Rheumatology, Pain Management, Podiatry, Pediatrics, Behavioral Health, and Primary Care.

Test Methodology: Immunization transmission logs will be collected quarterly via HL7 outgoing dashboard for desired date range.

Expected Outcome(s): The expectation is that immunizations are able to be electronically transferred from customer databases to local and state health registries for collection.

Measures Used

The following measure has been identified to validate conformance to § 170.315(h)(1) - Direct Project criterion requirements.

Measure 1:

Data exchange for inbound and outbound secure messaging.

Certification Criteria	Requirement
§ 170.315(h)(1) – Direct Project	● Applicability Statement for Secure Health Transport. ○ Able to send and receive health information in accordance with the standard specified in §170.202(a)(2), including formatted only as a "wrapped" message. ● Delivery Notification in Direct. ○ Able to send and receive health information in accordance with the standard specified in §170.202(e)(1).

Justification: This metric will allow us to verify complete data exchange from clinician to clinician and/or patients, for various clinical applications.

Care Setting(s): Medical speciality category include: Rheumatology, Pain Management, Podiatry, Pediatrics, Behavioral Health, and Primary Care. Therapy specialty category include: Physical Therapy, Occupational Therapy, and Speech Therapy.

Test Methodology: Remote inbound and outbound log will be reviewed for completeness of direct message utilization. This test methodology will primarily test the conformance and interoperability of the implementation.

Expected Outcome(s): It is expected that the utilization of our third-party software, Kno2, will enhance direct messaging (inbound and outbound) functionality and in turn will significantly decrease the amount of traditional faxes being sent and/or received.

Measures Used

The following measure has been identified to validate conformance to § 170.315(f)(2) - Transmission to public health agencies — syndromic surveillance criterion requirements.

Measure 1:

Compliance to § 170.315(f)(2) - Transmission to public health agencies — syndromic surveillance criterion requirements.

Certification Criteria	Requirement
§ 170.315(f)(2) - Transmission to public health agencies — syndromic surveillance	• Create syndrome-based public health surveillance information for electronic transmission in accordance with the standard (and applicable implementation specifications) specified in §170.205(d)(4).

Justification: This measure will verify interoperability of the implementation to support successful transmission of public health data to required health agencies.

Care Setting(s): Medical speciality category includes: Rheumatology, Pain Management, Podiatry, Pediatrics, Behavioral Health, and Primary Care.

Test Methodology: This test methodology will primarily test the conformance and interoperability of the implementation by reviewing HL7 Dashboard results for complete transmission from a provider or care entity to a public health entity.

Expected Outcome(s): The expectation is that public health data are able to be electronically transferred from customer databases to local and state health registries for collection.

Measures Used

The following measure has been identified to validate conformance to § 170.315(f)(5) - Transmission to public health agencies — electronic case reporting criterion requirements.

Measure 1:

Compliance to § 170.315(f)(5) - Transmission to public health agencies — electronic case reporting criterion requirements.

Certification Criteria	Requirement

§ 170.315(f)(5) - Transmission to public health agencies — electronic case reporting	• Consume and maintain a table of trigger codes to determine which encounters may be reportable.
	• Match a patient visit or encounter to the trigger code based on the parameters of the trigger code table.
	• Case report creation. Create a case report for electronic transmission:
	  ◦ Based on a matched trigger from paragraph (f)(5)(ii).
	  ◦ That includes, at a minimum:
	  ▪ The data classes expressed in the standards in § 170.213, or
	  ▪ The Common Clinical Data Set until December 31, 2022.
	  ▪ *Encounter diagnosis*. Formatted according to at

	least one of the following standards: ● The standard specified in §170.207(i). ● At a minimum, the version of the standard specified in §170.207(a)(4). ● The provider's name, office contact information, and reason for visit. ● An identifier representing the row and version of the trigger table that triggered the case report.

Justification: This measure will verify interoperability of the implementation to support successful transmission of public health data to required health agencies.

Care Setting(s): Medical speciality category includes: Rheumatology, Pain Management, Podiatry, Pediatrics, Behavioral Health, and Primary Care.

Test Methodology: This test methodology will primarily test the conformance and interoperability of the implementation by reviewing HL7 Dashboard results for complete transmission from a provider or care entity to a public health entity.

Expected Outcome(s): The expectation is that public health data are able to be electronically transferred from customer databases to local and state health registries for collection.

Measures Used

The following outlines the measures that have been identified to best demonstrate conformance to multiple certification criteria concerning the exchange of data across various customer use experiences.

- § 170.315(c)(1) - Clinical quality measures (CQMs) — record and export
- § 170.315(c)(2) - Clinical quality measures (CQMs) — import and calculate
- § 170.315(c)(3) - Clinical quality measures (CQMs) — report

Measure 1: Facilitate transitions of care

The following associated criterion will be used to demonstrate conformance with sending and receiving patient care documents and/or referral summaries.

Certification Criteria	Requirement
§ 170.315(c)(1) - Clinical quality measures (CQMs) —	(i) Record - able to record all data necessary to

record and export	calculate CQMs presented for certification.
	(ii) Export - export a data file formatted in accordance with HL7® QRDA Category I Release 3 for one or multiple patients that includes all of the data captured in (c)(1)(i) of this criterion.
§ 170.315(c)(2) - Clinical quality measures (CQMs) — import and calculate	(i) Import - import a data file formatted in accordance with HL7® QRDA Category I Release 3 for one or multiple patients in order to perform calculations on the CQMs presented for certification.
	(ii) Calculate - able to calculate each CQM presented for certification.
§ 170.315(c)(3) - Clinical quality measures (CQMs) — report	electronically create a data file for transmission of CQM data in accordance with the CMS Quality Reporting Document Architecture (QRDA) Category I Implementation Guide (IG) for inpatient measures as adopted in § 170.205(h)(3) and CMS QRDA Category III IG for ambulatory measures.

Justification: This approach will allow us to verify the QRDA and measure collection in a real world production-like (copy of production data and settings) environment with a customer utilizing the measure for reporting.

Care Setting(s): Medical speciality category includes: Rheumatology, Pain Management, Podiatry, Pediatrics, Behavioral Health, and Primary Care. Therapy speciality category includes: Adult and Pediatric physical, occupational, and speech-language therapy.

Test Methodology: We will demonstrate successful real world use by coordinating with a customer who requires the new eCQM measure, using a production (live) database copy for testing.

- Record and export - Export a real patient for whom data was collected in 2024
- Import and calculate - Import a test patient's data
- Report - Generate QRDA I and QRDA III for real customer patients for whom data was collected in 2024

Expected Outcome(s):

- CQM – record and export: Percentage of successful QRDA file generation for export for patients qualified according to the measure logic (target = 100%)
- CQM – import and calculate: Percentage of successfully imported test QRDA files(target = 100%)
- CQM - Report: Percentage of successfully generated QRDA I and QRDA III files (target = 100%)

Schedule of Key Milestones

Key Milestone	Date/Time Frame
Submit 2025 RWT Plan to ONC-ACB.	November 1, 2024
Release of documentation for the Real-World Testing to be provided to authorized representatives and providers. This includes surveys, specific instructions on what to look for, how to record issues encountered, and Customer Agreements.	December 1, 2024
Conduct testing for 2025 Real World Testing.	January 1, 2025
2024 RWT Analysis and report creation.	January 15, 2025
Submit a RWT results plan for 2024 to ONC-ACB.	February 1, 2025
Meet with previously identified providers and authorized representatives to ensure that Real World Testing protocols are effective.	February 2025
Quarterly review with providers and authorized representatives to understand any issues with data collection.	Quarterly, 2025
Data collection and review.	Quarterly, 2025
Conduct testing for 2026 Real World Testing.	January 1, 2026
2025 RWT Analysis and report creation.	January 15, 2026
Submit a RWT results plan for 2025 to ONC-ACB.	February 1, 2026

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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Date: 10/31/2024