REAL WORLD TESTING PLAN TEMPLATE

BACKGROUND & INSTRUCTIONS

Under the ONC Health IT Certification Program (**Program**), health IT developers are required to conduct Real World Testing of their certified health IT (45 CFR 170.405). The Office of the National Coordinator for Health Information Technology (ONC) issues Real World Testing resources to clarify health IT developers' responsibilities for conducting Real World Testing, to identify topics and specific elements of Real World Testing that ONC considers a priority, and to assist health IT developers in developing their Real World Testing plans.

Health IT developers have maximum flexibility to develop innovative plans and measures for Real World Testing. As developers are planning how they will execute Real World Testing, they should consider the overall complexity of the workflows and use cases within the care settings in which they market their certified health IT to determine the approaches they will take. This Real World Testing plan template was created to assist health IT developers in organizing the required information that must be submitted for each element in their Real World Testing plan. While the use of this template is voluntary, health IT developers may find it useful in preparing their Real World Testing plans. Health IT developers must submit one plan for each year of Real World Testing (see resources listed below for specific timelines and due dates). ONC does not encourage updating plans outside the submission timeline and will not post updates on the Certified Health IT Product List (CHPL). If adjustments to approaches are made throughout Real World Testing, the health IT developer should reflect these adjustments in their Real World Testing results report. ONC expects that the Real World Testing results report will include a description of these types of changes, the reasons for them, and how intended outcomes were more efficiently met as a result. **While every effort has been made to ensure the accuracy of restatements of 45 CFR Part 170, this template is not a legal document. The official program requirements are contained in the relevant laws and regulations. This resource should be read and understood in conjunction with the following companion resources, which describe in detail many of the Program requirements referenced in this resource.**

- Real World Testing–What It Means for Health IT Developers – Fact Sheet
- Real World Testing Resource Guide – Coming Soon
- Real World Testing Certification Companion Guide

Health IT developers should also review the following regulatory materials, which establish the core requirements and responsibilities for Real World Testing under the Program.

- 21st Century Cures Act: Interoperability, Information Blocking, and the ONC Health IT Certification Program final rule, 85 FR 25642 (May 1, 2020) (**ONC Cures Act Final Rule**)
  - ↳ *Section VII.B.5 — "Real World Testing"*

TEMPLATE INSTRUCTIONS

The following template is organized by elements required to be submitted in the Real World Testing plan. Each section provides a field for submitting responses and/or explanations for how the health IT developer will address each required element in their Real World Testing approach. These fields serve as a foundation of information

required for developing a Real World Testing plan and can be expanded with additional rows or columns to address the specific needs of the Real World Testing plan being submitted.

GENERAL INFORMATION

Plan Report ID Number: [For ONC-Authorized Certification Body use only]

Developer Name: Netsmart

Product Name(s): gEHRiMed

Version Number(s): 4.2

Certified Health IT: 170.315(b)(1), 170.315(b)(2), 170.315(b)(6), 170.315(e)(1), 170.315(f)(1), 170.315(b)(2), 170.315(g)(7), 170.315(g)(8), 170.315(g)(9)

Product List (CHPL) ID(s): 15.04.04.1532.gEHR.04.02.1.210420

Developer Real World Testing Page URL: https://www.ntst.com/-/media/pdfs/certifications/gmd-rwt-application-programming.pdf

JUSTIFICATION FOR REAL WORLD TESTING APPROACH

Provide an explanation for the overall approach to Real World Testing, including an outline of the approach and how data will be used to demonstrate successful Real World Testing[i].

All measures should reasonably align with the elements within a Real World Testing plan, the scope of the certification, the types of settings in which the certified health IT is marketed, and other factors relevant to the implementation of the certified Health IT Module(s). The justification should reflect how each element within the plan is relevant to the developer's overall strategy for meeting the Real World Testing Condition and Maintenance of Certification requirements.

Note: A single Real World Testing plan may address multiple products and certification criteria for multiple care settings.

Use Case: Evaluating real-world use of API functionality, we evaluated our client population's use of our certified technology. We found no clients that use the API in a manner that addresses our certified functionality. As such, we'll create a test scenario that addresses real world use of API: patient selection, data category request(s), and all data request(s) per the functionality outlined in the certified modules:

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

STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI))

Both required and voluntary standards updates must be addressed in the Real World Testing plan. Real World Testing plans must include all certified health IT updated to newer versions of standards prior to August 31 of the year in which the updates were made.

Describe approach(es) for demonstrating conformance to all certification requirements using each standard to which the health IT is certified. List each version of a given standard separately. For each version of a standard submit the following:

- ✓ *Identify standard versions*
- ✓ *Indicate what certification criteria in which product(s) has been updated*
- ✓ *If reporting for multiple products, identify the certification criteria that were affected by the update for each of the associated products*
- ✓ *CHPL ID for each Health IT Module*
- ✓ *Method used for standard update (e.g., SVAP)*
- ✓ *Date notification sent to ONC-ACB*
- ✓ *If SVAP, date notification sent to customers*
- ✓ *Measure used to demonstrate conformance with updated standard(s)*
- ✓ *Which certification criteria were updated to USCDI and/or to which version of USCDI was the certification criteria updated?*

Standard (and version)	§170.315 (g)(7) *Application access – patient selection*— None §170.315 (g)(8) *Application access – data category request*— Paragraph (g)(8)(i) Please refer to the Data Elements and Vocabularies applicable to the Common Clinical Data Set (CCDS) as outlined in the Common Clinical Data Set Reference Document § 170.315 (g)(9) *Application access – all data request*—

	Paragraph (g)(9)(i)(A) § 170.213 United States Core Data for Interoperability (USCDI) Version 1 § 170.205(a)(4) Health Level 7 (HL7®) Implementation Guide for CDA Release 2 Consolidation CDA Templates for Clinical Notes (US Realm), Draft Standard for Trial Use Release 2.1 C-CDA 2.1, August 2015, June 2019 (with Errata) § 170.205(a)(5) HL7® CDA R2 IG: C-CDA Templates for Clinical Notes R2.1 Companion Guide, Release 2, October 2019, IBR approved for § 170.205(a)(5)
Updated certification criteria and associated product	No updates have been made.
Health IT Module CHPL ID	15.04.04.1532.gEHR.04.02.1.210420
Method used for standard update	N/A, updates have not been made
Date of ONC-ACB notification	04/20/2021
Date of customer notification (SVAP only)	n/a
Conformance measure	n/a
USCDI-updated certification criteria (and USCDI version)	n/a

MEASURES USED IN OVERALL APPROACH

Each plan must include at least one measurement/metric that addresses each applicable certification criterion in the Health IT Module's scope of certification. Describe the method for measuring how the approach(es) chosen meet the intent and purpose of Real World Testing.

For each measurement/metric, describe the elements below:

- ✓ Description of the measurement/metric
- ✓ Associated certification criteria
- ✓ Justification for selected measurement/metric
- ✓ Care setting(s) that is addressed
- ✓ Expected outcomes

DESCRIPTION OF MEASUREMENT/METRIC

Describe the measure(s) that will be used to support the overall approach to Real World Testing.

Measurement/Metric	Description
Number of patient ID requests, return of ID or token over test population	API patient selection. This will evaluate the functionality of our certified module to address patient id requests over our API. Successful completion of the API request validates associated certification criteria outlined in §170.315 (g)(7).
Number of test patient data category requests (per CCDS categories) over a denominator population	API test data category request(s). Patient test data category requests will be evaluated over a denominator population over a timeframe. Successful completion of the API request validates associated certification criteria outlined in §170.315 (g)(8).
Number of All Data requests (per CCDS) over a population.	API all data request. This will allow evaluation of patient 'all data' selection for API exchange of patient information. Successful completion of the API request validates associated certification criteria outlined in §170.315 (g)(9).

ASSOCIATED CERTIFICATION CRITERIA

List certification criteria associated with the measure and if updated to the 2015 Edition Cures Update criteria.

Measurement/Metric	Associated Certification Criteria

170.315(g)(7): Application access – patient selection	**Regulation Text**
	
	§170.315 (g)(7) *Application access – patient selection—*
	
	The following technical outcome and conditions must be met through the demonstration of an application programming interface (API).
	
	1. *Functional requirement.* The technology must be able to receive a request with sufficient information to uniquely identify a patient and return an ID or other token that can be used by an application to subsequently execute requests for that patient's data.
	2. *Documentation—*
	    1. The API must include accompanying documentation that contains, at a minimum:
	        1. API syntax, function names, required and optional parameters and their data types, return variables and their types/structures, exceptions and exception handling methods and their returns.
	        2. The software components and configurations that would be necessary for an application to implement in order to be able to successfully

	interact with the API and process its response(s). 3. *Terms of use.* The terms of use for the API must be provided, including, at a minimum, any associated developer policies and required developer agreements. 2. The documentation used to meet paragraph (g)(7)(ii)(A) of this section must be available via a publicly accessible hyperlink.
170.315(g)(8): Application access – Data category request	The following technical outcome and conditions must be met through the demonstration of an application programming interface. 1. *Functional requirements.* 1. Respond to requests for patient data (based on an ID or other token) for each of the individual data categories specified in the Common Clinical Data Set and return the full set of data for that data category (according to the specified standards, where applicable) in a computable format. 2. Respond to requests for patient data associated with a specific date as well as requests for patient data within a specified date range. 2. *Documentation—* 1. The API must include accompanying documentation that contains, at a minimum: 1. API syntax, function names, required and optional parameters and their data types, return variables and their types/structures, exceptions and exception handling methods and their returns. 2. The software components and configurations that would be necessary for an application to implement in order to be able to successfully interact with the API and process its response(s). 3. *Terms of use.* The terms of use for the API must be provided, including, at a minimum, any associated developer policies and required developer agreements. 2. The documentation used to meet paragraph (g)(8)(ii)(A) of this section must be available via a publicly accessible hyperlink.

170.315(g)(9): Application access – All data request	The following technical outcome and conditions must be met through the demonstration of an application programming interface. 1. *Functional requirements.* 1. (1) Respond to requests for patient data (based on an ID or other token) for all of the data classes expressed in the standards in § 170.213 at one time and return such data (according to the specified standards, where applicable) in a summary record formatted in accordance with § 170.205(a)(4) and (5) following the CCD document template, and as specified in paragraphs (g)(9)(i)(A)(*3*)(*i*) through (*iii*) of this section, or 2. The Common Clinical Data Set in accordance with paragraphs (g)(9)(i)(A)(*3*)(*i*) through (*iv*) of this section for the period until December 31, 2022, and 3. The following data classes: 1. *Assessment and plan of treatment.* In accordance with the "Assessment and Plan Section (V2)" of the standards specified in § 170.205(a)(4); or in accordance with the "Assessment Section (V2)" and "Plan of Treatment Section (V2)" of the standards specified in § 170.205(a)(4). 2. *Goals.* In accordance with the "Goals Section" of the standard specified in § 170.205(a)(4). 3. *Health concerns*. In accordance with the "Health Concerns Section" of the standard specified in § 170.205(a)(4). 4. *Unique device identifier(s) for a patient's implantable device(s).* In accordance with the "Product Instance" in the "Procedure Activity Procedure Section" of the standard specified in § 170.205(a)(4). 2. Respond to requests for patient data associated with a specific date as well as requests for patient data within a specified date range. 2. *Documentation—* 1. The API must include accompanying documentation that contains, at a minimum:

	2. API syntax, function names, required and optional parameters and their data types, return variables and their types/structures, exceptions and exception handling methods and their returns. 3. The software components and configurations that would be necessary for an application to implement in order to be able to successfully interact with the API and process its response(s). 4. Terms of use. The terms of use for the API must be provided, including, at a minimum, any associated developer policies and required developer agreements. 2. The documentation used to meet paragraph (g)(9)(ii)(A) of this section must be available via a publicly accessible hyperlink.

JUSTIFICATION FOR SELECTED MEASUREMENT/METRIC

Provide an explanation for the measurement/metric selected to conduct Real World Testing.

Measurement/Metric	Justification
Number of patient ID requests, return of ID or token over test population	We will be evaluating real world scenarios of how our clients use this functionality in the real world. This will allow us to evaluate real world functionality of patient ID request and return of ID / token data.
Number of test patient data category requests (per CCDS categories) over a denominator population	We will be creating a test real world scenario as none of our clients use this functionality in the real world. This will allow us to evaluate real world functionality of patient data category requests and the functionality thereof. While we have our API as a functioning certified module, none of our client bases uses this specific functionality. As such, we'll be evaluating this in a mirrored test environment.
Number of All Data requests (per CCDS) over a population.	We will be evaluating a real world scenarios of how our clients use this functionality in the real world. This will allow us to evaluate real world functionality of all data requests via API in a real world fashion.

CARE SETTING(S)

The expectation is that a developer's Real World Testing plan will address each type of clinical setting in which their certified health IT is marketed. Health IT developers are not required to test their certified health IT in every setting in which it is marketed for use. Developers should address their choice of care and/or practice settings to test and provide a justification for the chosen approach.

Note: Health IT developers may bundle products by care setting, criteria, etc. and design one plan to address each, or they may submit any combination of multiple plans that collectively address their products and the care settings in which they are marketed

List each care setting which is covered by the measure and an explanation for why it is included.

Care Setting	Justification
The user population for this functionality is in a post-acute, long term care setting.	This is the care setting in which Gehrimed electronic health record technology is used.

EXPECTED OUTCOMES

Health IT developers should detail how the approaches chosen will successfully demonstrate that the certified health IT:

(1) is compliant with the certification criteria, including the required technical standards and vocabulary codes sets;

(2) is exchanging electronic health information (EHI) in the care and practice settings for which it is marketed for use; and/or,

(3) EHI is received by and used in the certified health IT.

(from 85 FR 25766)

Not all of the expected outcomes listed above will be applicable to every certified Health IT Module, and health IT developers may add an additional description of how their measurement approach best addresses the ongoing interoperability functionality of their product(s). Health IT developers could also detail outcomes that should not result from their measurement approach if that better describes their efforts.

Within this section, health IT developers should also describe how the specific data collected from their Real World Testing measures demonstrate expected results. Expected outcomes and specific measures do not necessarily have to include performance targets or benchmarks, but health IT developers should provide context for why specific measures were selected and how the metrics demonstrate individual criterion functionality, EHI exchange, and/or use of EHI within certified health IT, as appropriate.

Measurement/Metric	Expected Outcomes
Number of patient ID requests, return of ID or token over test population	Expected validation of normal patient ID selection and return of ID/Token per standards.
Number of patient data category requests (per CCDS	Validation of patient data category requests via API for CCDS data in a test environment. This will be along similar lines as all data requests as the methodology is similar.

categories) over a denominator population	
Number of All Data requests (per CCDS) over a population.	Ability to select All Category Data per CCDS for patients selected will be evaluated. An identified user group uses this functionality to make calls to identify the patient, and pull data as needed. Evaluating this functionality over time will ensure functionality and interoperability as expected.

SCHEDULE OF KEY MILESTONES

Include steps within the Real World Testing plan that establish milestones within the process. Include details on how and when the developer will implement measures and collect data. Key milestones should be relevant and directly related to expected outcomes discussed in the next section.

For each key milestone, describe when Real World Testing will begin in specific care settings and the date/timeframe during which data will be collected.

Key Milestone	Care Setting	Date/Timeframe
Evaluation of test scenarios	Long Term Post Acute Care	1/30/2022
Set up of evaluation of API: Patient selection requests, categorical data requests, all category data requests	Long Term Post Acute Care	2/15/2022
Set up automation of API Patient, category, all data requests, evaluate initial results	Long Term Post Acute Care	2/28/2022
Run monthly testing and evaluation of API functionality tested	Long Term Post Acute Care	3/15/2022

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.[ii]

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: Benjamin Britton

Authorized Representative Email: bbritton@ntst.com

Authorized Representative Phone: 970-658-6897

Authorized Representative Signature: 

Date: 9/29/2021

[i] Certified health IT continues to be compliant with the certification criteria, including the required technical standards and vocabulary codes sets; certified health IT is exchanging EHI in the care and practice settings for which it is marketed for use; and EHI is received by and used in the certified health IT. (85 FR 25766)

[ii] https://www.federalregister.gov/d/2020-07419/p-3582