INTRODUCTION

Sisohis application is a software that enables the handling of health records occurring during the appointment, admission, polyclinic, hospitalization, treatment and all ongoing processes which are carried out by the institutions or persons providing health services, and the tracking of administrative resources used during these such as people, materials, and finances.

SisoHIS aims to communicate data from one health unit to another application or client service, workability with different applications by meeting the expectations and requirements of this test plan and adhering to certification criteria.

GENERAL INFORMATION

Plan Report ID Number:	20211130sis
Developer Name:	Sisoft Healthcare Information Systems
Product Name(s):	SisoHis
Version Number(s):	2
Certified Health IT Product List (CHPL) ID(s):	15.05.05.3018.SISO.01.00.0.180621
Developer Real World Testing Page URL:	https://www.sisoft.com.tr/en/real-world-testing.jsp

JUSTIFICATION FOR REAL WORLD TESTING

SisoHIS ensures the sharing of healthcare and other necessary records of the patients with other health units and applications via Api Integration services.

The SisoHIS Api services to be used in the test plan aims to verify that the application is working according to the requirements of the articles 170.315 (f)(5): Transmission to Public Health Agencies - Electronic Case Reporting, and 170.315 (g)(7): Application Access - Patient Selection in scope of this certification.

The conformity to the test criteria in scope of this certification will be provided through the test scenarios. The aim of the test plan approach is to test the data structures through the 170.315 (f)(5): Transmission to Public Health Agencies - Electronic Case Reporting, and 170.315 (g)(7): Application Access - Patient Selection api services created using the standards and requirements of the certification criteria

STANDARTS UPDATES

No current standards have been updated under the Standards Version Advancement Process.

Standard (and version)	No Updates
Updated certification criteria and associated product	N/A
Health IT Module CHPL ID	N/A
Conformance measure	N/A

Care Setting(s) Tested

Care setting(s) covered by the identified measures.

Care Setting	Associated Measure(s)	Justification
Ambulatory	Certification Criteria 170.315 (f)(5)(i) Certification Criteria 170.315 (f)(5)(i) Certification Criteria 170.315 (f)(5) (iii)(A)(B) Certification Criteria 170.315 (g)(7) (i) Certification Criteria 170.315 (g)(7) (ii)(A)(B)	The requirements that take place in this test plan prepared for f(5) Public Health and (g)(7) Patient Access certification criteria have been prepared for SisoHIS application and Api interface services Outpatient environment.

MEASURES

The test plan aims to realize the Real World tests of **170.315 (f)(5): Transmission to Public Health Agencies - Electronic Case Reporting** and **170.315 (g)(7): Application Access - Patient Selection** in scope of certification criteria.

The following basic measurement and monitoring titles have been individually organized in accordance with the test and results procedures set out in the 2015 Certificate Criteria, however the interoperability and accuracy of the 170.315 (f)(5) and 170.315 (g)(7) certification criteria will be checked in the test plan within similar tests and measurements.

Relied Upon Software	N/A

Certification Criteria and Requirements of 170.315(f)(5)

Measure Description & Associated Criteria

This measurement will test compliance with **(f)(5) Transmission to Public Health Agencies - Electronic Case Reporting** Certification criteria through the data and reports generated in these certification criteria, using the Sisohis App.

List of measures identified, their associated certification criteria, and a description of each one.

Measurement / Metric	Associated Certification Criteria	Description
Certification Criteria (i) Validate	170.315 (f)(5)	Step 1- The tester reviews documentation supplied by the health IT developer describing the means by which the Health IT Module can consume a table of trigger codes that will be used to determine which encounters should initiate an initial case report being sent to public health. Step 2- The tester reviews documentation supplied by the health IT developer describing the means by which the Health IT Module is able to maintain updates to a table of trigger codes from the prior step.
Certification Criteria (iii) Validate	170.315 (f)(5)	The tester reviews documentation supplied by the Health IT Vendor describing the means by which the Health IT module can correctly match a patient encounter or visit based on the parameters of the trigger code table.
Certification Criteria (iii) (A) (B) Validate	170.315 (f)(5)	The tester reviews documentation supplied by the Health IT Vendor describing the set of data elements the Health IT module can create making up a case report for the patient encounter(s) based on a matched trigger from (f)(5)(ii).

Measure Justification

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

Measurement / Metric	Justification
170.315 (f)(5) Certification Criteria's Validate (i) (ii)	• API compliance is checked for demographic identity information, medical records and other parameters that make up the public health report specified in the Public Health certificate criteria. • In Api tests, data packages will be created using real data types, definitions, however the patient demographic data and identity information will be linked to anonymized control. • A Sisoft Api Test document will be prepared for the functionality, control and implementation of the Tests required in the certification criteria. • Test phases are performed using real patient data with anonymized Identity and Demographic information. • The data and report examples used for the f(5) Public Health criteria will be compatible with the access services documented in g(7) Patient Access required Api services. • *Additional documents pertinent to the Certification test steps can be prepared for the test stages to be carried out properly.*
170.315 (f)(5) Certification Criteria (iii) Validate	*Report and data examples used in (f)(5) Transmission to Public Health Agencies criterion, (g)(7) Patient Access Requirement can be tested and verified. by access services documented in Api services.*

Expected Outcomes

Description of expected outcomes for each measure.

Measurement / Metric	Expected Outcomes
170.315 (f)(5) Certification Criteria (i)	*The expected outcome of the measurement is that the demographical identity information, medical records, and other parameters specified in the Public Health certification criteria are to be reportable by Sisohis application and the clinical parameters in these reports to meet the expected results.*
170.315 (f)(5) Certification Criteria (ii)	*SisoHIS Api integration build allows for the Public Health reports being*

170.315 (f)(5) Certification Criteria (iii)(A)(B)	*created in certain formats and the report to be used by integrated applications. The expected outcome of the measurement is to meet 90%s or more of the Certification Criteria.*

Certification Criteria and Requirements of 170.315(g)(7)

This measure will test the compliance of the certified API technology using the SisoHIS application.

Measure Description & Associated Criteria

This measurement will test compliance with **170.315 (g)(7): Application Access - Patient Selection** Certification criteria through the data and reports generated in these certification criteria, using the Sisohis App.

List of measures identified, their associated certification criteria, and a description of each one.

Measurement / Metric	Associated Certification Criteria	Description
Certification Criteria 170.315 (g)(7) (i) Sisohis Api / Response	170.315 (g)(7)	1. The tester verifies the Health IT Module's API can receive a query from the health IT developer's identified application for a specific patient ID or other token that can be used by the identified application to subsequently execute requests for that patient's data. 2. The tester verifies that the Health IT Module's API returns a specific patient ID or other token that can be used by an application to subsequently execute requests for that patient's data.
Certification Criteria 170.315 (g)(7) (ii)(A)(1) Tester Validate	170.315 (g)(7)	The tester verifies that the supplied documentation for the Health IT Module's API definition is accurate and that it matches the version of the software release.
Certification Criteria 170.315 (g)(7) (ii)(A)(2) Tester Validate	170.315 (g)(7)	The tester verifies that the supplied documentation for interfacing with the Health IT Module's API (including both the software components and the configuration) is accurate and without omission and that it matches the version of the software release.
Certification Criteria 170.315 (g)(7) (ii)(A)(3) Tester Validate	170.315 (g)(7)	The tester verifies the supplied documentation contains the Terms of Use and that it matches the version of the software release.

Certification Criteria 170.315 (g)(7) (ii)(B) Tester Validate	170.315 (g)(7)	The tester verifies that the supplied documentation is publicly accessible by hyperlink.

Measure Justification

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

Measurement / Metric	Justification
Certification Criteria 170.315 (g)(7) (i) Sisohis Api / Response	• The access information specified in the API access page and document will be used for the successful execution of this test. • The system will send the expected results to callings to be made from the external application or test interface.
Certification Criteria 170.315 (g)(7) (ii)(A) Tester Validate	• The information and documents on the API access page and its linked pages will provide the information on how the test accesses will be conducted, additional parameters and results.
Certification Criteria 170.315 (g)(7) (ii)(B) Tester Validate	• The API access page will provide the necessary access points for the tests requested in 170.315 (g)(7) (i) and the integration processes of different applications.

Expected Outcomes

Description of expected outcomes for each measure.

Measurement / Metric	Expected Outcomes
Certification Criteria 170.315 (g)(7) (i) Sisohis Api / Response	*The expected outcome of the measurement is that the expected results in the test criteria or the API responses work according to the documents prepared for this test.* *The system will show Patient ID, other content expected according to various query criteria, or the lack of results as a response. The operability of the queries will be assured with a Token ID as indicated in Api documents. Results that are expected to yield 95% or more of responses to queries.*
Certification Criteria 170.315 (g)(7) (ii)(A) Tester Validate	*In order to run 170.315(g)(7) tests, SisoHIS Api access page and documents have been prepared.* *Technical contents and documents contain parameters and links in order to run tests in this certification process.*
Certification Criteria 170.315 (g)(7) (ii)(B) Tester Validate	*The expected result for the measurement targets 95% compatibility of the prepared api page, parameter details, link information, and other additional components.*

Real World Testing Methodologies Summary

This measurement aims to test compliance with (f)(5) Public Health Institutions - Electronic Case Reporting Certification criteria and 170.315 (g)(7): Application Access - Patient Selection Certification criteria through the data and reports generated in these certification criteria using the Sisohis Application.

Standarts Updates

- No new adopted standard for the criterion was included in this testing plan.

Care Settings Tested

- Ambulatory

Real World Testing Milestones

Milestone 1Q-2022 :

- Identify clients and partners to participate in RWT.

Milestone 4Q-2022 :

- Conduct tests as identified by measures and record outcomes.
- Comparison of actual outcomes to expected outcomes.
- Analysis of testing results.

Milestone 1Q-2023 :

- Creating of RWT Report
- Submission of RWT Report to ONC-ACB

Real World Testing Metrics - Outcomes

RWT Measure #1.

170.315 (f)(5) Certification Criteria (i) (ii) Validate

Measurement targets :

- API compliance is checked for demographic identity information, medical records and other parameters that make up the public health report specified in the Public Health certificate criteria.

- In Api tests, data packages will be created using real data types, definitions, however the patient demographic data and identity information will be linked to anonymized control.

- A Sisoft Api Test document will be prepared for the functionality, control and implementation of the Tests required in the certification criteria.

- Test phases are performed using real patient data with anonymized Identity and Demographic information.

- The data and report examples used for the f(5) Public Health criteria will be compatible with the access services documented in g(7) Patient Access required Api services.

- Additional documents pertinent to the Certification test steps can be prepared for the test stages to be carried out properly.

Associated Criteria : 315(f)(5)

Testing Methodology: Self-Test / Compliance and Tool / Reporting

Measurement Description:

This measurement aims to measure the compliance of the public health data, data sets, created using the Sisohis Application, with the criteria specified in the test document requirements.

This metric aims to measure the conformance of public health data and datasets generated using the Sisohis App to the criteria specified in the test document requirements

Testing Results :

Our system is compatible with the API requirements to be used in Reporting in terms of Credentials, Medical Records and Used data sets that make up the Public Health Report.

Sisoft Api Test Document has been prepared within the scope of this measurement.

The Test Document verifies the compatibility and comparison of the data sets and encodings used in the EHR with the reference data sets required in these test requirements by meeting the report samples.

The SisoHIS Api integration structure allows Public Health reports to be generated in specific formats and the report to be used by integrated applications. The measurement is to meet 90% of the targeted certification criteria for these test purposes.

Non-Conformities or Errors Discovered:

During our testing, we did not discover any errors or criteria non-conformities.

Changes for this Measure from Original RWT Test Plan :

We did not make any notable changes from our documented RWT Test Plan in our testing methods or metrics.

Analysis and Key Findings :

Our results show that the data generated within the EHR Module meets the Public Health Requirements test objectives.

RWT Measure #2.

170.315 (f)(5) Certification Criteria (iii) (A) (B) Validate

Measurement targets :

- Report and data examples used in (f)(5) Transmission to Public Health Agencies criterion, (g)(7) Patient Access Requirement can be tested and verified. by access services documented in Api services.

Associated Criteria : 315(f)(5)

Testing Methodology: Compliance and Tool

Measurement Description:

This measurement aims to measure the compliance of the public health data, data sets, created using the Sisohis Application, with the criteria specified in the test document requirements.

Testing Results :

Report samples generated from the EHR application were checked and verified for compliance with the data sets required in criteria A and B of this test guideline.

Non-Conformities or Errors Discovered:

During our testing, we did not discover any errors or criteria non-conformities.

Changes for this Measure from Original RWT Test Plan :

We did not make any notable changes from our documented RWT Test Plan in our testing methods or metrics.

Analysis and Key Findings :

Our results show that the data generated within the EHR Module and the report samples generated meet the Public Health Requirements test objectives.

RWT Measure #3.

170.315 (g)(7) Certification Criteria (i) (ii) (A) (B) Validate

Measurement targets :

- The access information specified in the API access page and document will be used for the successful execution of this test.

- The system will send the expected results to callings to be made from the external application or test interface.

- The information and documents on the API access page and its linked pages will provide the information on how the test accesses will be conducted, additional parameters and results.

- The API access page will provide the necessary access points for the tests requested in 170.315 (g)(7) (i) and the integration processes of different applications.

- Documentation (Access Page and API Usage Document)

Associated Criteria : 315(g)(7)

Testing Methodology: Compliance and Tool / Logging

Measurement Description:

This metric aims to measure the conformance of health data generated using the Sisohis App to the criteria specified in 170.315 (g)(7): Application Access - Patient Selection Measurement requirements.

Testing Results :

Within the scope of the test, API access services and test links have been prepared to respond to patient and related queries according to the requirements.

Api Access Services page; as a documentation and guidance page, it presents how FHIR services work, which links and access parameters can be used, secure connection requirements and tools.

The purpose of the API access page is to contain the software components and configurations that will be required for an application to interact successfully. The terms of use document has also been added to this page.

Apart from the Api access services page, an Api requirements document was prepared as part of the Test.

The document contains content on how to use functional technical requirements such as Api Connection, Token acquisition, Function, Parameter, Data Types, Query examples, etc.

Non-Conformities or Errors Discovered:

During our testing, we did not discover any errors or criteria non-conformities.

Changes for this Measure from Original RWT Test Plan :

We did not make any notable changes from our documented RWT Test Plan in our testing

methods or metrics.

Analysis and Key Findings :

Within the scope of the test, the foundation of a structure that we can integrate with different software, not only specific to these test requirements, has been laid.

In our previous works, the data exchange methods that were more closed and made through document communication, sample code sharing, etc. created a successful process with the technical working methods provided by this test.