HealthIT.gov

§170.315(g)(8) Application access — data category request

2015 Edition Test Procedure

Updated on 06-01-2022

Revision History

Version #	Description of Change	Version Date
1.0	Final Test Procedure.	01-20-2016
1.1	Removed reference to time in paragraph (g)(8)(i)(B) Test Lab Verification step 1. Included sex in the list of data elements for paragraph (g)(8)(i)(A).	03-08-2016
1.2	Removed regulation text paragraph § 170.315(g)(8)(ii)(A)(*3*) and tests regarding API terms of use as per the ONC Cures Act Final Rule. As per the ONC Cures Act Final Rule, API terms of use requirements are contained within the § 170.404 API Condition and Maintenance of Certification requirements.	06-01-2022

Regulation Text

Regulation Text

§ 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.

(i) *Functional requirements.*

(A) 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.

(B) Respond to requests for patient data associated with a specific date as well as requests for patient data within a specified date range.

(ii) *Documentation*—

(A) 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).
(B) The documentation used to meet paragraph (g)(8)(ii)(A) of this section must be available via a publicly accessible hyperlink.

Standard(s) Referenced

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.

Resource Documents

Resource Document

- Privacy and Security Certification Companion Guide [PDF - 281 KB]
- 2015 Edition Network Time Protocol (NTP) [PDF - 157 KB]
- CHPL SED Guide [PDF - 690 KB]
- Master Table of Related and Required Criteria [PDF-251 KB]
- CCDS Reference [PDF - 655 KB]
- CCDS Guide [PDF - 349 KB]

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Standard(s) Referenced

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.

Please consult the Final Rule entitled: *2015 Edition Health Information Technology (Health IT) Certification Criteria, 2015 Edition Base Electronic Health Record (EHR) Definition, and ONC Health IT Certification Program Modifications* for a detailed description of the certification criterion with which these testing steps are associated. We also encourage developers to consult the Certification Companion Guide in tandem with the test procedure as they provide clarifications that may be useful for product development and testing.

Note: The order in which the test steps are listed reflects the sequence of the certification criterion and does not necessarily prescribe the order in which the test should take place.

Testing components

Paragraph (g)(8)(i)(A)

System Under Test

1. Using the Health IT Module's identified API functions (including the ID or token generated as part of the "Application Access – patient selection" certification criterion at § 170.315(g)(7)), the user demonstrates that one or more API routines responds to and returns the full set of data for each data category from the CCDS for the unique patient identified by the ID or token. Where applicable, the data must be formatted using the specified standards defined in the CCDS Reference Document in a computable format to the developer-identified requesting application:
    - Patient Name
    - Sex
    - Date of Birth
    - Race
    - Ethnicity
    - Preferred Language
    - Smoking Status
    - Problems
    - Medications
    - Medication Allergies
    - Laboratory Tests
    - Laboratory Values(s)/Result(s)
    - Vital Signs
    - Procedures
    - Care Team Member(s)
    - Immunizations
    - Unique Device Identifier(s) for a Patient's Implantable Device(s)
    - Assessment and Plan of Treatment
    - Goals
    - Health Concerns

Test Lab Verification

1. For each of the CCDS data categories specified in the CCDS Reference Document, the tester verifies the full set of data for each data category is returned by one or more API routine(s) by repeating steps 2-4, for each CCDS data category.
2. For each of the identified API routine(s) necessary to return the full set of data for a given data category, the tester verifies the identified API routine(s) can respond to a request for the CCDS category.
3. The tester verifies the data returned from the identified API routine(s) is in a computable format (e.g., XML, JSON, or another computable format documented by the health IT developer).
4. The tester verifies the data returned from the identified API routine(s) is in accordance with standards associated with the specific data element(s) as specified in the CCDS Reference Document. No standard is required for the overall structure of the data category request, so long as the data returned are in a computable format (machine-readable format) and the data is represented according to applicable standards.

The following technical outcome and conditions must be met through the demonstration of an application programming interface.

Paragraph (g)(8)(i)(B)

System Under Test

1. The Health IT Module's identified API functions, return data to the developer-identified requesting application for a specific date the requesting application identifies.
2. The Health IT Module's identified API functions, return data to the developer-identified requesting application for a specific date range the requesting application identifies.

Test Lab Verification

1. The tester verifies the API routine(s) can respond to a request for patient data for a specific date, and that the patient data returned is accurate and without omission based upon the health IT developer's documentation for data return based upon a date request.
2. The tester verifies the API routine(s) can respond to a request for patient data for a date range, and that the patient data returned is accurate and without omission based upon the health IT developer's documentation for data return based upon a date range request.

Paragraph (g)(8)(ii)(A)(*1*)

System Under Test

The health IT developer supplies documentation describing the API, with the intended audience of developers, and includes at a minimum:

- API syntax;
- function names;
- required and optional parameters and their data types;
- return variables and their types/structures; and
- exceptions and exception handling methods and their returns.

Test Lab Verification

The tester verifies the identified documentation for the Health IT Module's API definition is accurate and without omission, and that it matches the version of the software release.

Paragraph (g)(8)(ii)(A)(*2*)

System Under Test

The health IT developer supplies accompanying documentation describing the Health IT Module's API implementation requirements, with the intended audience of developers, which must include:

- 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).

Test Lab Verification

The tester verifies the identified 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.

Paragraph (g)(8)(ii)(B)

System Under Test

The documentation used to meet paragraph (g)(8)(ii)(A) of this section must be available via a publicly accessible hyperlink.

Test Lab Verification

The tester verifies the supplied documentation is publicly accessible by hyperlink.

Content last reviewed on February 17, 2023