HealthIT.gov

§170.315(g)(9) Application access — all data request

	2015 Edition Test Procedure

Updated on 03-08-2016

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)(9)(i)(B) Test Lab Verification step 1.	03-08-2016

Regulation Text

Regulation Text

§ 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.

  (i) *Functional requirements.*
    (A) Respond to requests for patient data (based on an ID or other token) for all of the data categories specified in the Common Clinical Data Set at one time and return such data (according to the specified standards, where applicable) in a summary record formatted according to the standard specified in § 170.205(a)(4) following the CCD document template.
    (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).
      (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.
    (B) The documentation used to meet paragraph (g)(9)(ii)(A) of this section must be available via a publicly accessible hyperlink.

Standard(s) Referenced

Paragraph (g)(9)(i)(A)

§ 170.205(a)(4) Health Level 7 (HL7®) Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes (US Realm), Draft Standard for Trial Use Release 2.1, August 2015

Please refer to the Data Elements and Vocabularies applicable to the Common Clinical Data Set (CCDS) as outlined in the CCDS 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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      (B) Respond to requests for patient data associated with a specific date as well as requests for patient data within a specified date range.
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      (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).

(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.

(B) The documentation used to meet paragraph (g)(9)(ii)(A) of this section must be available via a publicly accessible hyperlink.

⌄ Standard(s) Referenced

Paragraph (g)(9)(i)(A)

§ 170.205(a)(4) Health Level 7 (HL7®) Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes (US Realm), Draft Standard for Trial Use Release 2.1, August 2015

Please refer to the Data Elements and Vocabularies applicable to the Common Clinical Data Set (CCDS) as outlined in the CCDS Reference Document.

⌄ Testing

Testing Tool

Edge Testing Tool (ETT): Message Validators

Test Tool Documentation

Test Tool Supplemental Guide

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

Gap	🗎	🔍	🔧	ONC Supplied Test Data

Paragraph (g)(9)(i)(A)

System Under Test

Setup

1. Using the ETT: Message Validators – C-CDA R2.1 Validator, the health IT developer downloads the ONC-supplied data instructions through the sender download selections of the "APIAccess_Amb" or "APIAccess_Inp" criteria and one of the API instruction documents, and then executes the download.

Demonstrate API

2. Using the ONC-supplied API instruction document returned in step 1, and 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 the API responds to and returns all data from the Common Clinical Data Set in a summary record formatted in accordance with the standard adopted at § 170.205(a)(4) HL7® Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes, DSTU Release 2.1, following the CCD document template and including the CCDS data requirements as specified in the CCDS Reference Document for the unique patient identified by the ID or token.
3. For each CCD document created in step 2, the user submits the CCD document to the tester for verification.
4. Based on the health IT setting(s) to be certified, a user repeats steps 1-3, for each of the ambulatory and/or inpatient care plan instruction documents found in the ETT: Message Validators. The demonstration of the API is required for all of the API instruction documents for a given health IT setting.

Test Lab Verification

Demonstrate API

1. For each API instruction set downloaded in step 1, of the SUT, the tester verifies that the identified API routine(s) can respond to a request for "all patient data" and return all data in the CCDS in a single document using the CCD document template.
2. Using ETT: Message Validators – C- R2.1 Validator, the tester uploads the submitted CCD document returned from the identified API routine(s) through the sender upload selection of the "APIAccess_Amb" or "APIAccess_Inp" criteria and file name of the API instruction document, and the tester executes the upload of the submitted file to the ETT: Message Validators.
3. The tester uses the validation report produced by the ETT: Message Validators in step 2, to verify that it indicates passing without error to confirm that the CCD document returned by the API is in a summary record formatted in accordance with the standard adopted at § 170.205(a)(4) using the CCD document template.
4. As required by the ONC-supplied API instructions with the corresponding file names as uploaded in step 2, the tester uses the ONC-supplied API instruction document and the ETT: Message Validators Message Content Report to verify the additional checks for equivalent text for the content of all section level narrative text.

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

Paragraph (g)(9)(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 that 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 that 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)(9)(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)(9)(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 it matches the version of the software release.

Paragraph (g)(9)(ii)(A)(*3*)

System Under Test

The health IT developer supplies the API's Terms of Use, which needs to include, at a minimum, any associated developer policies and required developer agreements.

Test Lab Verification
The tester verifies the identified documentation contains the Terms of Use and it matches the version of the software release.

Paragraph (g)(9)(ii)(B)

System Under Test
The documentation used to meet paragraph (g)(9)(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 March 9, 2023