The Office of the National Coordinator for
Health Information Technology

2015 Edition §170.315(g)(9) Application Access – all data request

Testing Components:

ONC Supplied Test Data

Test Procedure Version 1.0 – Last Updated 1/20/16

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

Required Tests

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

(g)(9)(i) Functional requirements

(A) Respond to requests for patient data 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 adopted at § 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.

Standard(s):

§ 170.205(a)(4): HL7 CDA R2 Implementation Guide: Consolidated CDA Templates for Clinical Notes (US Realm) Draft Standard for Trial Use Release 2.1

Data Elements and Vocabularies applicable to the Common Clinical Data Set (CCDS) – Outlined in the Common Clinical Data Set Reference Document .

Test Data: ETT: Message Validators

Inpatient setting: - 170.315_g9_api_access_inp_sample*.docx (All Samples)

Ambulatory setting - 170.315_g9_api_access _amb_sample*.docx (All Samples)

Test Tool: ETT: Message Validators

Criteria ¶	System Under Test	Test Lab Verification
(i)(A)	<u>Setup</u> 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. <u>Demonstrate API</u> 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 that 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 CDA R2 Implementation Guide: Consolidated CDA Templates for Clinical Notes (US Realm) 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.	<u>Demonstrate API</u> 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.

Criteria ¶	System Under Test	Test Lab Verification
(i)(B)	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.	1. The tester verifies that 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 and time request. 2. The tester verifies that 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.

(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): None

Criteria ¶	System Under Test	Test Lab Verification
(ii)(A)	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.	The tester verifies that 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.
(ii)(A)(2)	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).	The tester verifies that 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.
(ii)(A)(3)	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.	The tester verifies that the identified documentation contains the Terms of Use and that it matches the version of the software release.
(ii)(B)	The documentation used to meet paragraph (g)(9)(ii)(A) of this section must be available via a publicly accessible hyperlink.	The tester verifies that the supplied documentation is publicly accessible by hyperlink.

Document History

Version Number	Description of Change	Date
1.0	Final Test Procedure	January 20, 2016

Dependencies: For all related and required criteria, please refer to the Master Table of Related and Required Criteria.