The Office of the National Coordinator for
Health Information Technology

2015 Edition §170.315(g)(8) Application Access – Data Category Request

Testing Components:

Test Procedure Version 1.1 – Last Updated 3/08/16

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)(8)(i) Functional requirements

(A) Respond to requests for patient data 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.

Standard(s):

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

Criteria ¶	System Under Test	Test Lab Verification
(i)(A)	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	1. For each of the CCDS data categories specified in the CCDS Reference Document, the tester verifies that 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 that the identified API routine(s) can respond to a request for the CCDS category. 3. The tester verifies that 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 that the data returned from the identified API routine(s) is in accordance with the 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.

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 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.	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 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)(8)(ii)(A) of this section must be available via a public access hyperlink.

Standard(s): None

Criteria ¶	System Under Test	Test Lab Verification
(ii)(A)(1)	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 the supplied 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)(8)(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.

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Document History

Version Number	Description of Change	Date
1.0	Final Test Procedure	January 20, 2016
1.1	Removed reference to time in (i)(B) Test Lab Verification step 1. Included sex in the list of data elements for (i)(A)	March 08, 2016

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