

# Inferno Tech Talk – Nov 2023

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FOR A SAFER WORLD™

# Inferno Tech Talk Introduction

- Purpose: to provide regularly scheduled updates on the Inferno tool and its implementation of the (g)(10) test procedure
- Typical agenda to include:
  - Announcements about upcoming releases
  - Training on new features
  - Highlight outstanding issues or known problems
  - Open discussion
- Monthly recurrence: 2<sup>nd</sup> Wednesday at 1PM ET

Content reflects Inferno's implementation of applicable Test Procedure and does not necessarily reflect ONC policy.

# Today's Agenda

- (g)(10) Standardized API Test Kit v4.0.0
- Discussions / Questions

# ONC (g)(10) Standardized API Test Kit v4.0.0

- Major Update:
  - Support ONC SVAP 2023
    - USCDI v3 / US Core v6.1.0
  - Updates terminology to UMLS 2023AA and to support US Core v6.1.0 relevant ValueSets
- Other Updates: 2

# ONC SVAP 2023

- USCDI v3 / US Core v6.1.0



← Options

US Core Version

US Core 3.1.1 / USCDI v1

US Core 4.0.0 / USCDI v1

US Core 5.0.1 / USCDI v2

US Core 6.1.0 / USCDI v3

SMART App Launch Version

SMART App Launch 1.0.0

SMART App Launch 2.0.0

Bulk Data Version

Bulk Data 1.0.1

Bulk Data 2.0.0

**START TESTING**

# New Test Group ID

**ONC Certification (g)(10) Standardized API** v.4.0.0  
US Core 5.0.1 / USCDI v2, SMART App Launch 1.0.0, Bulk Data 1.0.1

Preset: None

(g)(10) Standardized API

- 1 Standalone Patient App
- 2 Limited Access App
- 3 EHR Practitioner App
- 6 Single Patient API
- 7 Multi-Patient API
- 9 Additional Tests
  - 9.1 SMART Public Client Launch

**6 Single Patient API (US Core 5.0.1)**

For each of the relevant USCDI data elements...

The test begins by searching by one or more Resource returned and validates the response...

All MUST SUPPORT elements must be seen... those references will be validated to their US...

- 6.1 Capability Statement
- 6.2 Patient Tests

This update is mostly isolated to new Single Patient API test group, which includes the US Core v6.1.0 tests for new profiles, resources and associated search parameters

**ONC Certification (g)(10) Standardized API** v.4.0.0  
US Core 6.1.0 / USCDI v3, SMART App Launch 1.0.0, Bulk Data 1.0.1

Preset: None

(g)(10) Standardized API

- 1 Standalone Patient App
- 2 Limited Access App
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- 10 Single Patient API
- 7 Multi-Patient API
- 9 Additional Tests
  - 9.1 SMART Public Client Launch

**10 Single Patient API (US Core 6.1.0)**

For each of the relevant USCDI data elements...

The test begins by searching by one or more Resource returned and validates the response...

All MUST SUPPORT elements must be seen... those references will be validated to their US...

- 10.1 Capability Statement
- 10.2 Patient Tests

# New tests added elsewhere as needed for new resources

HealthIT.gov

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ONC Certification (g)(10) Standardized API V.4.0.0  
US Core 6.1.0 / USCDI v3, SMART App Launch 1.0.0, Bulk Data 1.0.1

NEW SESSION

Presets: None

- (g)(10) Standardized API
  - 1 Standalone Patient App
  - 2 Limited Access App
  - 3 EHR Practitioner App
  - 10 Single Patient API
  - 7 Multi-Patient API
  - 9 Additional Tests
    - 9.1 SMART Public Client Launch
    - 9.3 Token Revocation
    - 9.4 SMART Invalid AUD Launch
    - 9.5 SMART Invalid Token Request
    - 9.8 EHR Launch with Patient Scopes
    - 9.10 Visual Inspection
  - Report

1.7 Unrestricted Resource Type Access


About Unrestricted Resource Type Access

- 1.7.01 Scope granted enables access to all US Core resource types.
- 1.7.02 Access to Patient resources granted
- 1.7.03 Access to AllergyIntolerance resources granted
- 1.7.04 Access to CarePlan resources granted
- 1.7.05 Access to CareTeam resources granted
- 1.7.06 Access to Condition resources granted
- 1.7.07 Access to Device resources granted
- 1.7.08 Access to DiagnosticReport resources granted
- 1.7.09 Access to DocumentReference resources granted
- 1.7.10 Access to Goal resources granted
- 1.7.11 Access to Immunization resources granted
- 1.7.12 Access to MedicationRequest resources granted
- 1.7.13 Access to Observation resources granted
- 1.7.14 Access to Procedure resources granted
- 1.7.17 Access to Encounter resources granted
- 1.7.18 Access to ServiceRequest resources granted
- 1.7.19 Access to Coverage resources granted
- 1.7.20 Access to MedicationDispense resources granted

Configuration Messages

INFERNO BUILT WITH V.0.4.22 API

[Report Issue](#) [Open Source](#) [Download](#)



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ONC Certification (g)(10) Standardized API V.4.0.0  
US Core 6.1.0 / USCDI v3, SMART App Launch 1.0.0, Bulk Data 1.0.1

NEW SESSION

Presets: None


- (g)(10) Standardized API
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  - Report

- 7.3.13 Goal resources returned conform to the US Core Goal Profile
- 7.3.14 Immunization resources returned conform to the US Core Immunization Profile
- 7.3.15 MedicationRequest resources returned conform to the US Core MedicationRequest Profile
- 7.3.16 Observation resources returned conform to the relevant US Core Observation Profile
- 7.3.17 Procedure resources returned conform to the US Core Procedure Profile
- 7.3.18 Encounter resources returned conform to the US Core Encounter Profile
- 7.3.19 Organization resources returned conform to the US Core Organization Profile
- 7.3.20 Practitioner resources returned conform to the US Core Practitioner Profile
- 7.3.21 Provenance resources returned conform to the US Core Provenance Profile
- 7.3.22 Location resources returned conform to the HL7 FHIR Specification Location Resource if bulk data export has Location resources
- 7.3.23 Medication resources returned conform to the US Core Medication Profile if bulk data export has Medication resources
- 7.3.28 ServiceRequest resources returned conform to the US Core ServiceRequest Profile
- 7.3.29 RelatedPerson resources returned conform to the US Core RelatedPerson Profile
- 7.3.30 QuestionnaireResponse resources returned conform to the US Core QuestionnaireResponse Profile if bulk data has QuestionnaireResponse resources
- 7.3.31 PractitionerRole resources returned conform to the US Core PractitionerRole Profile if bulk data export has PractitionerRole resources
- 7.3.32 Coverage resources returned conform to the US Core Coverage Profile
- 7.3.33 MedicationDispense resources returned conform to the US Core MedicationDispense Profile
- 7.3.34 Specimen resources returned conform to the US Core Specimen Profile
- 7.4 Group Compartment Export Cancel Tests

Configuration Messages

INFERNO BUILT WITH V.0.4.22 API

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# Other Updates (1/2)

- Change required\_resources to required\_profiles ([#462](#)).
- US Core v4.0.0 and above
  - US Core IG 2.2.2 Conforming to US Core
    - SHALL specify the full capability details from the US Core CapabilityStatement it claims to implement.
    - Declare support for the US Core Profile by including its official URL in the server's CapabilityStatement.rest.resource.supportedProfile element

○ 5.1.05 Capability Statement lists support for required US Core Profiles



## Other Updates (2/2)

- Medication inclusion test for MedicationRequest and MedicationDispense ([#463](#)).
- .../MedicationRequest?xyz&\_include=MedicationRequest:medication
  - Old test behavior:
    - Verifies that Bundle has Medication resource(s)
  - New test behavior:
    - Verifies that Bundle has Medication resource(s)
    - Verifies that Medication resources in the Bundle match the references used in MedicationRequest.medicationReference

# Additional Notes

- **Users with a local installation:**
  - Must re-run terminology build process because of additional value sets and new UMLS version; please reach out on Zulip or GitHub Issues if experiencing any issues with this
  - No changes intended for Inferno API users; existing test IDs remain stable
- **Awaiting official publication of the Test Procedure to provide a mapping between tests and the updated Test Procedure**
- **Certification test options for US Core v.5.0.1 are expected to be removed in January release. ([SVAP Fact Sheet](#))**

# Open Discussion / Feedback

# Resources and Contact Information

- <https://inferno.healthit.gov/>
  - General materials & live demonstration server
- <https://github.com/onc-healthit/onc-certification-g10-test-kit/>
  - ONC Certification tests repository, downloads, issues
  - “Watch” repository to receive alerts (new releases, etc)
  - Note: this repository is specific to ONC Certification testing
- <https://groups.google.com/forum/#!forum/inferno-testing>
  - Announcements & community discussion
- [inferno@groups.mitre.org](mailto:inferno@groups.mitre.org) (or [rscanlon@mitre.org](mailto:rscanlon@mitre.org))
- Also, FHIR Zulip Chat: <https://chat.fhir.org/#narrow/stream/179309-inferno>

# Upcoming Meetings

- Next Inferno Tech Talk: **Wednesday December 13** at 1 PM ET
- Please reach out with questions & issues

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