Cardiology: Chest Pain/Coronary artery disease (CAD) Order Set KNART Validation Report

Order Set: Validation Report

Contract: VA118-16-D-1008, Task Order (TO): VA-118-16-F-1008-0007, CLIN0004AK

Department of Veterans Affairs



Knowledge Based Systems (KBS)
Office of Informatics and Information Governance (OIIG)
Clinical Decision Support (CDS)

Publication date 05/29/2018

Version: 1.0

Cardiology: Chest Pain/Coronary artery disease (CAD) Order Set KNART Validation Report: Order Set: Validation Report

by Knowledge Based Systems (KBS), Office of Informatics and Information Governance (OIIG), and Clinical Decision Support (CDS)

Publication date 05/29/2018 Copyright © 2018 B3 Group, Inc. Copyright © 2018 Cognitive Medical Systems, Inc.

B3 Group, Inc.

NOTICE OF GOVERNMENT COPYRIGHT LICENSE AND UNLIMITED RIGHTS LICENSE

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License.

You may obtain a copy of the License at http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Portions of this content are derivative works from content produced by Cognitive Medical Systems, Inc. licensed under the Apache License, Version 2.0

Additional portions of this content are derivative works from content contributed by Motive Medical Intelligence Inc., under Creative Commons Attribution-ShareAlike 4.0.

Contributions from 2013-2018 were performed either by US Government employees, or under US Veterans Health Administration contracts.

US Veterans Health Administration contributions by government employees are work of the U.S. Government and are not subject to copyright protection in the United States. Portions contributed by government employees are USGovWork (17USC §105). Not subject to copyright.

 $See: \ https://www.usa.gov/government-works$

Contribution by contractors to the US Veterans Health Administration during this period are contractually contributed under the Apache License, Version 2.0 and US Government sponsorship is acknowledged under Contract VA118-16-D-1008, Task Order VA11817F10080007.

Cognitive Medical Systems, Inc.

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License.

You may obtain a copy of the License at http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

This and related content produced by Cognitive Medical Systems, Inc. licensed under the Apache License, Version 2.0 is available at: https://bitbucket.org/cogmedsys/hl7-kas-examples

 $Additional\ portions\ of\ this\ content\ are\ derivative\ works\ from\ content\ contributed\ by\ Motive\ Medical\ Intelligence\ Inc.,\ under\ Creative\ Commons\ Attribution-ShareAlike\ 4.0.\ https://bitbucket.org/cogmedsys/kas-source-material$

Contributions from 2013-2018 were performed either by US Government employees, or under US Veterans Health Administration contracts.

US Veterans Health Administration contributions by government employees are work of the U.S. Government and are not subject to copyright protection in the United States. Portions contributed by government employees are USGovWork (17USC §105). Not subject to copyright. See: https://www.usa.gov/government-works

Contribution by contractors to the US Veterans Health Administration during this period are contractually contributed under the Apache License, Version 2.0 and US Government sponsorship is acknowledged under Contract VA118-16-D-1008-0007.

Table of Contents

| 1. Basic File and Well-formedness Tests | 1 |
|---|---|
| 2. XSD Schema Checks | 2 |
| 3. Schematron Checks | 3 |
| 4. Terminology Checks via Ontoserver | 4 |

List of Tables

| 1.1. | Summary | 1 |
|------|--------------------------------------|---|
| | KAS Schema Validation Summary | |
| | Editorial Convention Check | |
| | Ontoserver Information | |
| | Terminology and ANF Usage | |
| | SOLOR Placeholders | |
| | Other Unresolved | |
| | Unmodeled Concepts (anf:TSR-NoModel) | |

Chapter 1. Basic File and Well- formedness Tests

Table 1.1. Summary

| Information | Value |
|------------------------|----------------------------------|
| File name | CDSK_KRprt_OS_B5CPCAD.xml |
| File size | 134.0 KB |
| Type | Order Set |
| Publication Date | 05/29/2018 |
| File Modification Date | 06/06/2018 12:42:18 |
| Well-formed XML | YES |
| MD5 | a971045fbf48f38b99aee609a148654c |

Chapter 2. XSD Schema Checks

Table 2.1. KAS Schema Validation Summary

| Information | Value |
|--------------------|----------------------------------|
| KAS Schema Version | urn:hl7-org:knowledgeartifact:r1 |
| Schema File | knowledgedocument.xsd |
| Validation Errors | 0 |

Chapter 3. Schematron Checks

Table 3.1. Editorial Convention Check

| Information | Value |
|------------------------------|---|
| Editorial Schematron Version | ISO Schematron 2016 |
| Schema File | knart-L3-validation.sch, L3Validation.sch, KnartStyle.sch |
| Validation Errors | 0 |
| Validation Warnings | 0 |

Chapter 4. Terminology Checks via Ontoserver

Table 4.1. Ontoserver Information

| Information | | Value |
|--------------------|---------|---|
| Ontoserver URL | | https://ontoserver.hspconsortium.org/fhir |
| Ontoserver Version | | 5.0 |
| Date of Code Check | ī.S | 06/06/2018 12:42:58 |
| SNOMED | Version | http://snomed.info/sct/731000124108/version/20170901,http://snomed.info/sct/900000000000207008/version/20170731 |
| | Codes | 443237 |
| LOINC | Version | 2.61,2.63 |
| | Codes | 126207 |
| RXNorm | Version | Does not exist |
| | Codes | 0 |
| v3 Code System | Version | 2016-03-23 |
| EducationLevel | Codes | 9 |

Table 4.2. Terminology and ANF Usage

| Terminology References | | | |
|---------------------------------|---|-------------------------------------|---|
| Total Codes Used ^a | | 42 | |
| Resolved b | | 39 | |
| Unresolved ^c | 3 | TSR Requested Codes ^d | 0 |
| | | SOLOR Placeholder Codes e | 2 |
| | | Other Unresolved f | 1 |
| ANF Model Reference Information | | | |
| anf:ClinicalStatement | | 0 | |
| anf:TSR-NoModel ^g | | 1 | |

^aTotal number of unique codes referenced in the KNART XML.

^bNumber of unique codes used in the KNART XML and present in ontoserver.

^cNumber of unique codes used in the KNART XML and not found in ontoserver.

^dNumber of unique code system and code pairs referenced in the KNART XML with a placeholder ('TSR-NoCode').

^eNumber of unique codes in uuid form referenced in the KNART XML.

^fNumber of other unique codes not found in ontoserver, e.g. RXNorm codes.

gKAS elements modeled as 'anf:TSR-NoModel' indicates they cannot be modeled in the current version of ANF.

Table 4.3. SOLOR Placeholders

| | Information | Value |
|---|-------------|---|
| 1 | FileName | CDSK_KRprt_OS_B5CPCAD.xml |
| | Line | 428 |
| | Column | 139 |
| | Message | TSR requested for codeSystem: http://snomed.info/sct and code: de405a38-1cc8-44ef-81e7-fd1c0acf9421 |
| | Reference | KNART [file:CDSK_KRprt_OS_B5CPCAD.xml#line=428column=139] |
| 2 | FileName | CDSK_KRprt_OS_B5CPCAD.xml |
| | Line | 621 |
| | Column | 86 |
| | Message | TSR requested for codeSystem: http://snomed.info/sct and code: de405a38-1cc8-44ef-81e7-fd1c0acf9421 |
| | Reference | KNART [file:CDSK_KRprt_OS_B5CPCAD.xml#line=621column=86] |
| 3 | FileName | CDSK_KRprt_OS_B5CPCAD.xml |
| | Line | 826 |
| | Column | 150 |
| | Message | TSR requested for codeSystem: http://snomed.info/sct and code: bd01faa8-443c-4ad6-9cb6-ea50b4d7a093 |
| | Reference | KNART [file:CDSK_KRprt_OS_B5CPCAD.xml#line=826column=150] |
| 4 | FileName | CDSK_KRprt_OS_B5CPCAD.xml |
| | Line | 935 |
| | Column | 94 |
| | Message | TSR requested for codeSystem: http://snomed.info/sct and code: de405a38-1cc8-44ef-81e7-fd1c0acf9421 |
| | Reference | KNART [file:CDSK_KRprt_OS_B5CPCAD.xml#line=935column=94] |

Table 4.4. Other Unresolved

| | Information | Value |
|------------|-------------|---|
| 1 FileName | | CDSK_KRprt_OS_B5CPCAD.xml |
| | Line | 1544 |
| | Column | 143 |
| | Message | Code 471000175102, codeSystem http://snomed.info/sct not found in Ontoserver. |
| | Reference | KNART [file:CDSK_KRprt_OS_B5CPCAD.xml#line=1544column=143] |

Table 4.5. Unmodeled Concepts (anf:TSR-NoModel)

| Information | | Information | Value |
|-------------|---|-------------|---------------------------|
| | 1 | FileName | CDSK_KRprt_OS_B5CPCAD.xml |
| | | Line | 534 |

| Information | Value |
|-------------|--|
| Column | 101 |
| Message | Although a TSR was requested, "Referral to cardiology to evaluate chest pain (routine)" could not be modeled using ANF |
| Reference | KNART [file:CDSK_KRprt_OS_B5CPCAD.xml#line=534column=101] |