**Annual Value Set Update for the ONC C-CDA Validator**

These instructions provide the updated baseline that will be deployed with the annual value set update of the C-CDA validator used for the ONC 2015 Edition. These updated values will be effective as of October 31, 2017.

The C-CDA Validator for the 2015 Edition retains the validations for the vocabularies whose versions match the 2015 ONC Certification rule. All versions of the vocabulary validations incorporated into the tool will be additive in nature and will not decommission the previous version of the vocabulary.

As codes expire or get retired in newer versions of the vocabularies, WARNINGS will be flagged in the C-CDA Validator rather than errors; the minimum interoperable level will be tied to the version specified in the 2015 Edition rule.

**For the value sets not found in VSAC**

Instructions in this guide to recreate a value set from a given source are based on specific version of the value set at the time it was downloaded from the source. If your system has been updated to more recent versions, you may need to change the steps to create the listing of value sets not found in NLM accordingly (the information on page six.)

All the values (Codes and Descriptions) obtained from respective sources are copied to a generic template\* in order to maintain a consistent format for a value set.

For the fields: Value Set Name and OID in Value Set Info sheet, Code system, Code system version, Code system OID in Code List sheet, the data was obtained from C-CDA R2.1 Implementation Guide.

For field TTY (Term Type) in Code List sheet, if the data is not available in the source, term ‘PT’- as Preferred Term, was used.

**Value Sets from VSAC**

The table below lists the value sets downloaded from VSAC. These value sets are used as-is for configuration.

To download value sets from VSAC (https://vsac.nlm.nih.gov), an NLM account is required.

If you already have an account, login to VSAC and search for a specific value set using the oid and in the value set details page, click ‘Export Value Set Results’ link to download the value set in excel format (used as-is for configuration).

\*Template – Base template created in Excel to match VSAC value set format. This format is the format accepted by SITE referenceccdavalidator configuration for vocabulary validation

**List of Updated Value Sets**

| **Name** | **OID** | **Code Count** | **Source** |
| --- | --- | --- | --- |
| Ability | urn:oid:2.16.840.1.113883.11.20.9.46 | 8 | <https://vsac.nlm.nih.gov/valuesets> |
| ActNoImmunizationReason | urn:oid:2.16.840.1.113883.1.11.19717 | 8 | https://vsac.nlm.nih.gov/valuesets |
| Act Priority | urn:oid:2.16.840.1.113883.1.11.16866 | 15 | https://vsac.nlm.nih.gov/valuesets |
| ADL Result Type | urn:oid:2.16.840.1.113883.11.20.9.47 | 6 | https://vsac.nlm.nih.gov/valuesets |
| AdministrationUnitDoseForm | urn:oid:2.16.840.1.113762.1.4.1021.30 | 11 | https://vsac.nlm.nih.gov/valuesets |
| Administrative Gender (HL7 V3) | urn:oid:2.16.840.1.113883.1.11.1 | 3 | https://vsac.nlm.nih.gov/valuesets |
| AdvanceDirectiveTypeCode | urn:oid:2.16.840.1.113883.1.11.20.2 | 7 | https://vsac.nlm.nih.gov/valuesets |
| AgePQ\_UCUM | urn:oid:2.16.840.1.113883.11.20.9.21 | 6 | <https://loinc.org/usage/units/> |
| Allergy/Adverse Event Type | urn:oid:2.16.840.1.113883.3.88.12.3221.6.2 | 9 | https://vsac.nlm.nih.gov/valuesets |
| Body Site | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 | 31045 | https://vsac.nlm.nih.gov/valuesets |
| Care Model | urn:oid:2.16.840.1.113883.11.20.9.61 | 9 | https://vsac.nlm.nih.gov/valuesets |
| Clinical Drug Ingredient | urn:oid:2.16.840.1.113762.1.4.1010.7 | 24074 | https://vsac.nlm.nih.gov/valuesets |
| ConsultDocumentType | urn:oid:2.16.840.1.113883.11.20.9.31 | 51 | https://vsac.nlm.nih.gov/valuesets |
| Coverage Role Type | urn:oid:2.16.840.1.113883.1.11.18877 | 8 | https://vsac.nlm.nih.gov/valuesets |
| Criticality Observation | urn:oid:2.16.840.1.113883.1.11.20549 | 3 | https://vsac.nlm.nih.gov/valuesets |
| Smoking Status | urn:oid:2.16.840.1.113883.11.20.9.38 | 8 | https://vsac.nlm.nih.gov/valuesets |
| CVX Vaccines Administered - Vaccine Set | urn:oid:2.16.840.1.113762.1.4.1010.6 | 148 | https://vsac.nlm.nih.gov/valuesets |
| Detailed Ethnicity | urn:oid:2.16.840.1.114222.4.11.877 | 43 | https://vsac.nlm.nih.gov/valuesets |
| DIRQuantityMeasurementTypeCodes | urn:oid:2.16.840.1.113883.11.20.9.29 | 16 | https://vsac.nlm.nih.gov/valuesets |
| DischargeSummaryDocumentTypeCode | urn:oid:2.16.840.1.113883.11.20.4.1 | 7 | https://vsac.nlm.nih.gov/valuesets |
| Encounter Planned | urn:oid:2.16.840.1.113883.11.20.9.52 | 150 | https://vsac.nlm.nih.gov/valuesets |
| EncounterTypeCode | urn:oid:2.16.840.1.113883.3.88.12.80.32 | 177 | https://vsac.nlm.nih.gov/valuesets |
| EntityNameUse | urn:oid:2.16.840.1.113883.1.11.15913 | 13 | https://vsac.nlm.nih.gov/valuesets |
| EntityPersonNamePartQualifier | urn:oid:2.16.840.1.113883.11.20.9.26 | 10 | https://vsac.nlm.nih.gov/valuesets |
| Ethnicity | urn:oid:2.16.840.1.114222.4.11.837 | 2 | https://vsac.nlm.nih.gov/valuesets |
| Family Member Value Set | urn:oid:2.16.840.1.113883.1.11.19579 | 63 | https://vsac.nlm.nih.gov/valuesets |
| Goal Achievement | urn:oid:2.16.840.1.113883.11.20.9.55 | 4 | https://vsac.nlm.nih.gov/valuesets |
| Healthcare Agent Qualifier | urn:oid:2.16.840.1.113883.11.20.9.51 | 2 | https://vsac.nlm.nih.gov/valuesets |
| HealthcareServiceLocation | urn:oid:2.16.840.1.113883.1.11.20275 | 189 | https://vsac.nlm.nih.gov/valuesets |
| HealthStatus | urn:oid:2.16.840.1.113883.1.11.20.12 | 10 | https://vsac.nlm.nih.gov/valuesets |
| HL7 BasicConfidentialityKind | urn:oid:2.16.840.1.113883.1.11.16926 | 3 | https://vsac.nlm.nih.gov/valuesets |
| FinanciallyResponsiblePartyType | urn:oid:2.16.840.1.113883.1.11.10416 | 28 | https://vsac.nlm.nih.gov/valuesets |
| HPDocumentType | urn:oid:2.16.840.1.113883.1.11.20.22 | 13 | https://vsac.nlm.nih.gov/valuesets |
| INDRoleclassCodes | urn:oid:2.16.840.1.113883.11.20.9.33 | 6 | https://vsac.nlm.nih.gov/valuesets |
| LanguageAbilityMode | urn:oid:2.16.840.1.113883.1.11.12249 | 6 | https://vsac.nlm.nih.gov/valuesets |
| LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.1.11.12199 | 4 | https://vsac.nlm.nih.gov/valuesets |
| LOINC Imaging Document Codes | urn:oid:1.3.6.1.4.1.12009.10.2.5 | 5295 | https://vsac.nlm.nih.gov/valuesets |
| Marital Status | urn:oid:2.16.840.1.113883.1.11.12212 | 9 | https://vsac.nlm.nih.gov/valuesets |
| Medication Fill Status | urn:oid:2.16.840.1.113883.3.88.12.80.64 | 2 | https://vsac.nlm.nih.gov/valuesets |
| Medication Product Form | urn:oid:2.16.840.1.113883.3.88.12.3221.8.11 | 164 | https://vsac.nlm.nih.gov/valuesets |
| Medication Route FDA VSAC name:StructuredProductLabelingDrugRouteOfAdministration | urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 | 123 | https://vsac.nlm.nih.gov/valuesets |
| Mental and Functional Status Response | urn:oid:2.16.840.1.113883.11.20.9.44 | 10 | https://vsac.nlm.nih.gov/valuesets |
| MoodCodeEvnInt | urn:oid:2.16.840.1.113883.11.20.9.18 | 2 | https://vsac.nlm.nih.gov/valuesets |
| Nutrition Recommendations | urn:oid:2.16.840.1.113883.1.11.20.2.9 | 8 | https://vsac.nlm.nih.gov/valuesets |
| Nutritional Status | urn:oid:2.16.840.1.113883.1.11.20.2.7 | 16 | https://vsac.nlm.nih.gov/valuesets |
| Observation Interpretation (HL7) | urn:oid:2.16.840.1.113883.1.11.78 | 48 | https://vsac.nlm.nih.gov/valuesets |
| ParticipationFunction | urn:oid:2.16.840.1.113883.1.11.10267 | 48 | https://vsac.nlm.nih.gov/valuesets |
| Patient Education | urn:oid:2.16.840.1.113883.11.20.9.34 | 990 | https://vsac.nlm.nih.gov/valuesets |
| Patient Referral Act moodCode | urn:oid:2.16.840.1.113883.11.20.9.66 | 2 | https://vsac.nlm.nih.gov/valuesets |
| Payer | urn:oid:2.16.840.1.114222.4.11.3591 | 155 | https://vsac.nlm.nih.gov/valuesets |
| Personal And Legal Relationship Role Type | urn:oid:2.16.840.1.113883.11.20.12.1 | 116 | https://vsac.nlm.nih.gov/valuesets |
| Physical Exam Type | urn:oid:2.16.840.1.113883.11.20.9.65 | 53 | https://vsac.nlm.nih.gov/valuesets |
| Planned Intervention moodCode | urn:oid:2.16.840.1.113883.11.20.9.54 | 6 | https://vsac.nlm.nih.gov/valuesets |
| Plan of Care moodCode (Act/Encounter/Procedure) | urn:oid:2.16.840.1.113883.11.20.9.23 | 5 | https://vsac.nlm.nih.gov/valuesets |
| Plan of Care moodCode (Observation) | urn:oid:2.16.840.1.113883.11.20.9.25 | 5 | https://vsac.nlm.nih.gov/valuesets |
| Plan of Care moodCode (SubstanceAdministration/Supply) | urn:oid:2.16.840.1.113883.11.20.9.24 | 4 | https://vsac.nlm.nih.gov/valuesets |
| PostalAddressUse | urn:oid:2.16.840.1.113883.1.11.10637 | 10 | https://vsac.nlm.nih.gov/valuesets |
| Pressure Point | urn:oid:2.16.840.1.113883.11.20.9.36 | 19 | https://vsac.nlm.nih.gov/valuesets |
| Pressure Ulcer Stage | urn:oid:2.16.840.1.113883.11.20.9.35 | 5 | https://vsac.nlm.nih.gov/valuesets |
| Priority Level | urn:oid:2.16.840.1.113883.11.20.9.60 | 3 | https://vsac.nlm.nih.gov/valuesets |
| Problem | urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 | 115898 | https://vsac.nlm.nih.gov/valuesets |
| Problem Severity | urn:oid:2.16.840.1.113883.3.88.12.3221.6.8 | 6 | https://vsac.nlm.nih.gov/valuesets |
| HITSP Problem Status | urn:oid:2.16.840.1.113883.3.88.12.80.68 | 3 | https://vsac.nlm.nih.gov/valuesets |
| Problem Type | urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 | 15 | https://vsac.nlm.nih.gov/valuesets |
| ProblemAct statusCode | urn:oid:2.16.840.1.113883.11.20.9.19 | 4 | https://vsac.nlm.nih.gov/valuesets |
| ProcedureAct statusCode | urn:oid:2.16.840.1.113883.11.20.9.22 | 4 | https://vsac.nlm.nih.gov/valuesets |
| ProcedureNoteDocumentTypeCodes | urn:oid:2.16.840.1.113883.11.20.6.1 | 17 | https://vsac.nlm.nih.gov/valuesets |
| ProgressNoteDocumentTypeCode | urn:oid:2.16.840.1.113883.11.20.8.1 | 25 | https://vsac.nlm.nih.gov/valuesets |
| Race | urn:oid:2.16.840.1.113883.1.11.14914 | 921 | https://vsac.nlm.nih.gov/valuesets |
| Race Category Excluding Nulls | urn:oid:2.16.840.1.113883.3.2074.1.1.3 | 5 | https://vsac.nlm.nih.gov/valuesets |
| Referral Types | urn:oid:2.16.840.1.113883.11.20.9.56 | 932 | https://vsac.nlm.nih.gov/valuesets |
| ReferralDocumentType | urn:oid:2.16.840.1.113883.1.11.20.2.3 | 67 | https://vsac.nlm.nih.gov/valuesets |
| Related Document (append/replace) | urn:oid:2.16.840.1.113883.11.20.9.62 | 2 | https://vsac.nlm.nih.gov/valuesets |
| Religious Affiliation | urn:oid:2.16.840.1.113883.1.11.19185 | 82 | https://vsac.nlm.nih.gov/valuesets |
| Residence and Accommodation Type | urn:oid:2.16.840.1.113883.11.20.9.49 | 191 | https://vsac.nlm.nih.gov/valuesets |
| Result Status | urn:oid:2.16.840.1.113883.11.20.9.39 | 6 | https://vsac.nlm.nih.gov/valuesets |
| Sensory Status | urn:oid:2.16.840.1.113883.11.20.9.50 | 8 | <https://vsac.nlm.nih.gov/valuesets> |
| Social History Type Set Definition | urn:oid:2.16.840.1.113883.3.88.12.80.60 | 9 | https://vsac.nlm.nih.gov/valuesets |
| Substance Other Than Clinical Drug | urn:oid:2.16.840.1.113762.1.4.1010.9 | 4803 | https://vsac.nlm.nih.gov/valuesets |
| SurgicalOperationNoteDocumentTypeCode | urn:oid:2.16.840.1.113883.11.20.1.1 | 10 | https://vsac.nlm.nih.gov/valuesets |
| TargetSite Qualifiers | urn:oid:2.16.840.1.113883.11.20.9.37 | 5 | https://vsac.nlm.nih.gov/valuesets |
| Telecom Use (US Realm Header) | urn:oid:2.16.840.1.113883.11.20.9.20 | 4 | https://vsac.nlm.nih.gov/valuesets |
| Tobacco Use | urn:oid:2.16.840.1.113883.11.20.9.41 | 100 | https://vsac.nlm.nih.gov/valuesets |
| TransferDocumentType | urn:oid:2.16.840.1.113883.1.11.20.2.4 | 60 | https://vsac.nlm.nih.gov/valuesets |
| UnitsOfMeasureCaseSensitive | urn:oid:2.16.840.1.113883.1.11.12839 | 813 | <https://loinc.org/usage/units/> |
| Vaccine Clinical Drug | urn:oid:2.16.840.1.113762.1.4.1010.8 | 293 | https://vsac.nlm.nih.gov/valuesets |
| Vital Sign Result Type | urn:oid:2.16.840.1.113883.3.88.12.80.62 | 11 | https://vsac.nlm.nih.gov/valuesets |
| Wound Characteristic | urn:oid:2.16.840.1.113883.11.20.9.58 | 12 | https://vsac.nlm.nih.gov/valuesets |
| Wound Measurements | urn:oid:2.16.840.1.113883.1.11.20.2.5 | 3 | https://vsac.nlm.nih.gov/valuesets |
| Wound Type | urn:oid:2.16.840.1.113883.1.11.20.2.6 | 14 | https://vsac.nlm.nih.gov/valuesets |
| x\_ServiceEventPerformer | urn:oid:2.16.840.1.113883.1.11.19601 | 3 | https://vsac.nlm.nih.gov/valuesets |

**For the value sets not found in VSAC**

**List of value sets obtained from external sources/non-VSAC.**

1. **Language value set**  **oid: 2.16.840.1.113883.1.11.11526**

Source: <http://www.iana.org/assignments/language-subtag-registry/language-subtag-registry>

1. **StateValueSet oid: 2.16.840.1.113883.3.88.12.80.1**

Source: <http://www.census.gov/geo/reference/ansi_statetables.html>

1. **PostalCodeValueSet oid: 2.16.840.1.113883.3.88.12.80.2**

Source: <http://download.geonames.org/export/zip/>

1. **Unique Ingredient Identifier oid:2.16.840.1.113883.3.88.12.80.20**

Source: <http://fdasis.nlm.nih.gov/srs/jsp/srs/uniiListDownload.jsp>

1. **CountryValueSet oid: 2.16.840.1.113883.3.88.12.80.63**

Source: <https://www.iso.org/obp/ui/#search>

1. **ActStatus oid: 2.16.840.1.113883.1.11.159331**

Source: <http://www.hl7.org/documentcenter/public_temp_AA6DA7FE-1C23-BA17-0C04BB4B377BA758/standards/vocabulary/vocabulary_tables/infrastructure/vocabulary/ActStatus.html>

1. **UnitsOfMeasureCaseSensitive oid:2.16.840.1.113883.1.11.12839**

Source: <https://loinc.org/usage/units>

Note: To download this value set, LOINC requires users to set up a user account.

1. **AgePQ\_UCUM oid:2.16.840.1.113883.11.20.9.21**

Source: <https://loinc.org/usage/units/>

Note: To download this value set, LOINC requires users to set up user account.

1. **Substance-Reactant for Intolerance -2.16.840.1.113762.1.4.1010.1**

Value set intentionally defined as a GROUPING made up of:

Value Set: Medication Drug Class (2.16.840.1.113883.3.88.12.80.18) (NDFRT drug class codes); Value Set: Clinical Drug Ingredient (2.16.840.1.113762.1.4.1010.7) (RxNORM ingredient codes); Value Set: Unique Ingredient Identifier - Complete Set (2.16.840.1.113883.3.88.12.80.20) (UNII ingredient codes); Value Set: Substance Other Than Clinical Drug (2.16.840.1.113762.1.4.1010.9) (SNOMED CT substance codes).

**i. Value Set: Medication Drug Class (2.16.840.1.113883.3.88.12.80.18) (NDFRT drug class codes)**

Source: <https://phinvads.cdc.gov/vads/SearchAllVocab_search.action?searchOptions.searchText=2.16.840.1.113883.3.88.12.80.18>

**ii. Substance Other Than Clinical Drug (2.16.840.1.113762.1.4.1010.9) (SNOMED CT substance codes).**

Downloaded from VSAC

**iii. Clinical Drug Ingredient (2.16.840.1.113762.1.4.1010.7) (RxNORM ingredient codes)**

Downloaded from VSAC

**iv. Value Set: Unique Ingredient Identifier - Complete Set (2.16.840.1.113883.3.88.12.80.20) (UNII ingredient codes)**

Source: <http://fdasis.nlm.nih.gov/srs/jsp/srs/uniiListDownload.jsp>

1. Click on UNII Data link

2. Download and save UNII\_Data.zip file

3. Extract content/files

4. Open UNIIs dd-mmm-yyyy Records.txt file (date will vary based on published date of latest version)

5. Open new Excel file

6. Go to Data – Get External Data – From text and select file in step 4 to import

7. Select ‘Delimited’ option, click ‘Next’…until ‘Finish’

8. Copy ‘UNII’ column data to ‘Code’ and data in ‘PT’ column to ‘Description’ column in the template\*

9. Fill in the fields – Value set details in Value Set Info sheet and Code system, Code system version, Code system OID and TTY in Code List sheet.

**All above sets were added to the template\* to convert into format needed for configuration.**