

## **Allergy**

The HL7 Patient Care and Vocabulary workgroups recently conducted analysis to identify substances commonly used in allergy records. ISA has adopted the list identified for dietary substances, but not those for other domains: drugs, drug classes, environmental substances, refutations, and the supersets with and without refutations. They are found in VSAC with OIDs 2.16.840.1.113762.1.4.1186.1 through 2.16.840.1.113762.1.4.1186.8.

The Allergy domain also requires concepts for reaction severity, seriousness, and allergy/intolerance criticality. These are well-defined in FHIR value sets.

Severity is a measure of the physical intensity of a reaction. The dimensions and criteria for measure will vary by the reaction: a severe rash is one that covers more of the skin than a mild one, or has darker and more pronounced eruption; severe vomiting involves more frequent, persistent, copious, or strenuous emission.

Seriousness is a measure of the risk of harm for a given reaction. Rashes typically have mild to moderate seriousness: they are unlikely to kill or maim the patient (though they may indicate a more serious underlying condition).

Criticality is the risk of serious reactions in the future. An allergy that causes mild (severity) anaphylaxis has high criticality.

## **Encounter diagnosis**

It is unclear why the diagnosis concept is constrained to the 'encounter' context. A separate terminology asset would be useful to set this context, distinguishing admission ('principal'), primary, discharge, problem, (complaint?) and other varieties of diagnosis.

## **Family History**

Items are tagged "Standard for Observations" and supported with LOINC. For certain elements (e.g., genomics) this may be appropriate, but most traditional FH data is of the form of problems. SNOMED Findings are appropriate, as listed; ICD-10 may also be appropriate.

## **Provider**

Concur with Registries comment.

NUCC Provider Taxonomy is a flat list of codes, but the values may be at one of three levels. Every value has a somewhat redundant level one ('grouping') and a level two ('classification') label; most have level three ('specialization') labels. Adopters may benefit from guidance. Others have commented that the precision is counterproductive; perhaps this system could be used to define value sets at distinct levels of granularity.

**Representing Patient Industry and Occupation**

Distinguish between codes for the question and value sets for the answers. They are provided in the same list.

**Lab tests**

We feel that using a system with a license cost (viz., CPT) for a standard specification would be counterproductive.

**Representing Patient Medications**

RxNorm is a solid recommendation.

In addition to the suggestion to include UCUM units of measure, it might be useful to identify standards for physical forms and routes of administration. FDA, SNOMED CT, and NCIT have candidate values.

**Representing Clinical/Nursing Assessments**

Include Clinical Care Classification System (CCC) for nursing values. Two axes of this terminology are included in SCT refsets (Nursing diagnosis: Nursing Health Issues Refset, Nursing intervention: Nursing Activities refset). Goals and Assessments are not (explicitly) provided in SCT at this time.

**Problems**

SCT is certainly appropriate. If ICD (CM or otherwise) is not appropriate the rationale should be articulated.

**Language**

2.16.840.1.113883.1.11.11526 is a compositional value set with a combinatorically huge number of potential members. Recommend two tactics for managing this complexity: 1. Provide a tractable extensionally enumerated subset to handle most cases. 2. Provide explicit links to the valid component lists and explicit rules for using them to construct uncommon variants.

**Research**

## **Interoperability Standards Advisory: 2019 Request for Comments: VHA Response**

We agree with other commenters that the model specifications (OMOP, Sentinel) seem to be out of place in the terminology section.

We further feel that the service listings (NCI, CDISC) are functional rather than semantic and should be disaggregated for topic-specific consumption - e.g., dose forms under medication, etc.

### **Sex at birth**

The term "sex" reintroduces a lot of questions; suggest using "Phenotypic sex at birth."

### **Behavioral data**

It is interesting that there are no DSM values in any of these areas. Recommend engaging behavioral health professionals.

Where one tool is identified to the exclusion of others, specify the criteria for the selection. (e.g., HARK vs <https://www.domesticshelters.org/resources/risk-assessment-tools>)

### **Representing Patient Electronic Cigarette Use (Vaping)**

One of the four values provided for "observation" is a finding; the rest are physical devices. It's unclear how often this kind of information is captured.

### **Tobacco**

We agree with the proposed 5-item list in most cases, if it can be specified that "smoking" means tobacco. "Light," "Heavy," and "dependence" seem inappropriate.

For more detailed data, as other substances become more prevalent, it may make sense to address them in a coordinated fashion. Substance (tobacco, nicotine, cannabis, possibly other substances), route (smoking, dermal absorption, epithelial absorption, ingestion), device (cigarette, patch, snuff), frequency, duration. Some of these may be inferred from others, (e.g., a pack-a-day number answers several of those questions), so clinical interfaces can be much simpler.

### **Vitals**

There is much disagreement on what observations belong in the list of vital signs. We recommend a 'strict' list of the core 4 (HR, RR, Temp, BP), and one or more 'permissive' lists (including common observations such as Ht, Wt, O2, pain, occipital circumference).

We recommend sets of 'qualifier' elements - body position, exercise state, etc. See the FHIM/CIMI examples.