**HL7 Patient Care Work Group**

 **Allergy/Intolerance/Adverse Reaction Topic Sub-Group Meeting Minutes**

**Date: April 20, 2016**

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Co-Chairs: Stephen Chu/Elaine Ayres Scribe: Elaine Ayres

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| --- | --- |
| **Name** | **Present on April 20, 2016** |
| Elaine Ayres | X |
| Stephen Chu | X |
| Rob Hausam | X |
| Gay Dolin |  |
| Russ Leftwich | X |
| Emma Jones |  |
| Lisa Nelson | X |
| Michelle Miller | X |
| Donna Bohannon |  |
| Brett Marquard |  |
| Russell McDonnell |  |
| Julia Skapik |  |
| Dianna Dodd |  |
| Jay Lyle | X |
| Larry McKnight |  |
| Hank Mayers | X |
| Julia Skapik |  |
| Serafina Versaggi |  |
| M’Lynda Owens | X |
| Bit Vo |  |
| Jaspreet Birk |  |
| Rita Barsoum | X |
| Margaret Dittloff | X |
| David Parker | X |
|  |  |

**Agenda for April 20, 2016**

1. Minutes from April 6, 2016
2. Review of queries conducted against allergy lists for substance information
	1. Create query for Optum request
	2. Document current body of knowledge for use in value set project
3. Allergy Substance Terms PSS – questions and updates
4. USP Update
5. Negation project update
6. Rob McClure – VSAC value set collaborative
7. Next meeting – May 4, 2016 – week before Montreal

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1. Minutes of April 6, 2016 Move: Russ/Rob Abstain – 3 , Negatives – 0 , Approve – 6
2. David Parker – VA/DOD Define query –
	1. VA corporate data warehouse of VISTA systems
		1. Ran queries against allergen recordings for one year (allergen lists)
		2. Incident data again local terminologies and then mapped to other terminologies
		3. Did not look at subjects only entries
	2. DOD – ran six months of data against warehouse
		1. Against allergen lists
		2. Only records, not by patient
		3. Incident data mapped local terminologies to other terminologies
	3. Combining data sets –
		1. reduced to RxNorm codes for ingredients for meds
		2. Food – mapped to SNOMED CT
		3. Others also mapped to SNOMED CT
		4. Cleaning erroneous mappings
	4. Original data capture
		1. Pick lists -- List display off local terms
		2. DOD local lists but originated from FDB
			1. Mapped to RxNorm, some SNOMED some NDFRT
		3. VA – uses GUIDS to other terminologies
	5. How many entries had to be excluded (e.g. unmapped)
		1. Free text were not mapped.
	6. If an item is not available on the list – entered as free text
		1. 88 % against a specific term, 12 % were not (DOD)
		2. DOD list is 104,000 concepts are on the list
		3. Drug class assertion – clinician determined. Not allergic to a class.
			1. Clinically a drug class does not make sense.
3. KP – Rita
	1. All data is from FDB
	2. Queries against the FDB database were as follows:



* 1. If concept not available – enter as free text.
	2. Results of queries are in added to the wiki.
1. Michelle – Cerner
	1. From population health platform – multiple sources (Cerner and non-Cerner)
	2. May lead to variance because it is from various EHR vendors
	3. Looked at counts
		1. Proprietary
		2. Free text
		3. Standard terms
	4. If data in standard code – don’t touch. If proprietary – have done mapping to standard terminology.
	5. The role up
		1. 32 different clients with 67 different sources – 39.5 million allergen records
		2. Unique individual counts (e.g. de-dupe by person)
		3. SNOMED - 46% of allergens
		4. Multum – 25%
		5. RxNorm - 2 %
		6. NDC – 1%
		7. <1% others
		8. Free text – 3%, 23% proprietary (not mapped to standard)
	6. Data entry – in Cerner Millenium
		1. UI is a pick list (from Multum and other terminologies for non-med substances) or can default to free text
		2. Each implementation can modify the pick list
		3. Pick lists – not flat, type in a search phrase
			1. Can document as an ingredient, categories, brand name, multi-ingredient (IN, MIN, BN, PIN). Are branded generics mapped to a brand name or single ingredient? Run decision support off the ingredients.
	7. For other systems – not sure
2. Optum list:
	1. Resell data for research purposes
	2. 5 Million records
	3. C-CDA documents might be a source
	4. Requests
		1. Documentation on an EHR allergy list
		2. Documentation in ADT message
		3. Documentation from C-CDA
		4. Data types – medications, food, other
		5. We need mappings to standard terminologies if available – RxNorm, SNOMED, UNII
		6. Free text entries if available
		7. Statistics on data set
			1. Percent by provenance
	5. Documentation of negation
		1. Is it by code, term or as inclusion and exclusion criteria
		2. Flat files – concatenate to single element? Vs. native capture as a two code system
		3. How do you negate a specific substance?
		4. Negation in free text?
		5. Are negations classes or specific substances?
3. Reviewed PSS – adjusted wording
4. Term info – FHIR allergy and intolerance resource
	1. Proposal from TermInfo:

Proposal from TermInfo for negation/exclusion in the FHIR AllergyIntolerance resource for consideration by the Patient Care WG (owner of the AllergyIntolerance resource):

* + - **Rename the existing AllergyIntolerance.substance element to AllergyIntolerance.code**
1. Keep as CodeableConcept
2. Change the element cardinality to 0..1
3. Keep the current value set binding to <http://hl7.org/fhir/ValueSet/allergyintolerance-substance-code> for the AllergyIntolerance.code element
	* + - 1. Add SNOMED CT "No latex allergy" (409175002) to the value set
				2. Consider also adding "No known insect allergy" (428197003) to the value set?
				3. Rename the value set to allergy-intolerance-code
				4. Create a new value set (allergy-intolerance-negated-code ?) to group all of the negated codes that are (or will be) included in the allergy-intolerance-code value set

The new definition of the allergy-intolerance-code value set would then be:

Import all the codes that are contained in <http://hl7.org/fhir/ValueSet/substance-code>

Import all the codes that are contained in <http://hl7.org/fhir/ValueSet/allergy-intolerance-negated-code>

* + - **Create a standard extension for adding a new AllergyIntolerance.excludedCode element**
			1. 0..1 CodeableConcept
			2. Add an example value set binding to the <http://hl7.org/fhir/ValueSet/allergyintolerance-substance-code> value set (the same value set as above – to be renamed to allergy-intolerance-code as in 1.3.c)
				1. I expect that this may be controversial!
			3. Add an invariant along with the extension to say that either AllergyIntolerance.code or AllergyIntolerance.excludedCode can be populated, but not both
				1. I believe this should be possible?
			4. Add an explicit statement to the effect that double negation, if it occurs, is to be interpreted as additive or reinforcing, rather than as a "logically positive" statement of allergy or intolerance
	1. Change allergyintolerance.substance to allergyintolerance.code
		1. Supports negation
		2. Use current value set binding but value set needs to be renamed
			1. Can add additional negation codes
	2. Need for two value sets – one for substances and one for negation under umbrella.
	3. Can only use allergyintolerance.code or allergyintolerance.exclusionCode as a standard extension
		1. Is this a safety issue if a negated code is in an exclusion element?
	4. What are the computability elements? Outside the list it might be a clinical statement in a note.

The group agreed to meet on Wednesday, May 4 prior to the Montreal WG meeting.