SNOMED on FHIR

- Formed at Member Forum's request, NZ Wellington 2016
- Mission: determine best practice in FHIR systems using SNOMED CT
- Equal footing between SNOMED International and HL7
- Meeting (almost) every Tuesday 20:00 UTC for 90 minutes
- Split into two streams - week about
  - Terminology Services (ML, PJ)
  - Terminology Binding (DK, JR)
- https://confluence.ihtsdotools.org/display/FHIR
- Global Patient Set - particularly relevant to FHIR (free!)

FHIR Free Set - Sun 27 October

- Special guest star Grahame Grieve
- Originally mapping from HL7 to SNOMED concepts to support analysis
- Solution offered considered of insufficient value
  - << 106234000 |General adjectival modifier (qualifier value)|
- Way forward:
  - Suggest experimentation in this area to request originator
  - SI Workplan to address supporting data analytics
  - Short term - use FHIR profiles to restrict use of clinical finding concepts with context eg "In remission" (use Info Model instead).
  - Further analysis by working group

Terminology Binding

Terminology binding

- Aim
  - To develop guidance on using SNOMED CT with FHIR resources, other coding systems, and value sets
- Deliverables
  - Best practice guidelines on use of SNOMED CT with FHIR
  - SNOMED CT-centric FHIR profiles
  - SNOMED CT maps to FHIR coding systems
- Progress
  - Publishing of AllergyIntolerance and Vital Signs profiles by end 2019
  - SNOMED CT maps to selected FHIR coding systems
  - Forum for discussion on SNOMED-FHIR terminology binding best practice

- ConceptMaps for FHIR code systems to SNOMED CT
- Binding patterns
- Implementation Guidance Principles
- Resource bindings
  - AllergyIntolerance Binding
  - Condition Resource
  - Immunization
  - Medication Resource
    - Mapping of FHIR Medication to SNOMED CT Concept
  - Observation binding
  - ServiceRequest
  - Specimen binding
  - Vital Signs panel binding
- Molecular Pathology harmonising V2 and FHIR Datasets
- Developing and publishing ValueSets
- Free SNOMED CT set for FHIR
  - FHIR SNOMED CT Free Set - Consider for inclusion / rejection (Red mappings)
  - FHIR SNOMED CT Free Set - Proposal for Grahame Grieve (Green mappings)
  - FHIR SNOMED CT Free Set - Questions for HL7 (Amber mappings)

https://github.com/IHTSDO/snomed-ig

Home   Concept Maps   Value Sets   Code Systems   Profiles   Downloads   FAQ

SNOMED CT Implementation Guide for FHIR, published by SNOMED International. This is not an authorized publication; it is the continuous build for version null). This version is based on the current content of https://github.com/IHTSDO/snomed-ig/ and changes regularly. See the Directory of published versions

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SNOMED CT Implementation Guide for FHIR

This is the SNOMED CT implementation guide for FHIR.

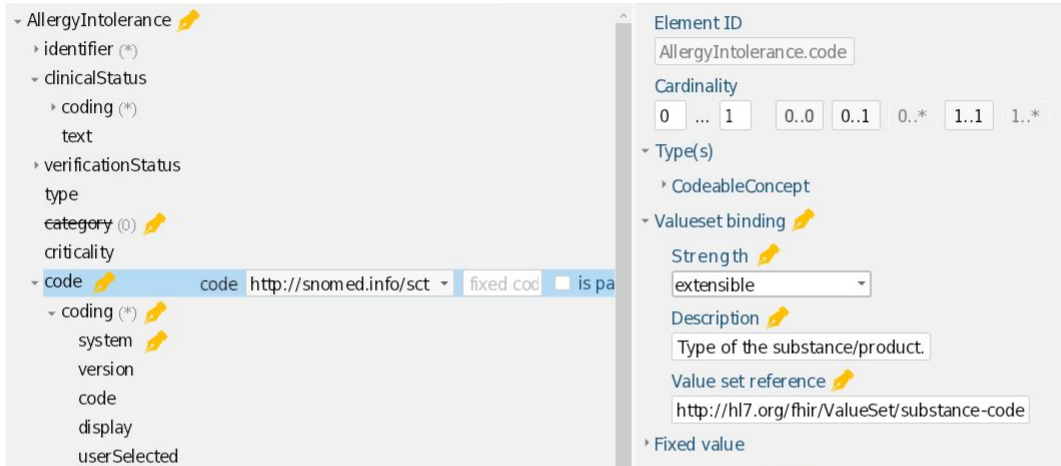## Contents

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2 General Implementation Considerations

3 SNOMED specific behaviours

4 Implementing Terminology Services with SNOMED CT

[5 Design Notes specific to Client Applications]

6 SNOMED Specific profiles

7 Terminology Binding

8 Test Suites for using SNOMED with FHIR Servers

9 Frequently Asked Questions

Editors notes:

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AllergyIntolerance - Substance version

Left panel (element tree):

- AllergyIntolerance ✎
  - ▸ identifier (*)
  - ▾ clinicalStatus
    - ▸ coding (*)
    - text
  - ▸ verificationStatus
  - type
  - ~~category~~ (0) ✎
  - criticality
  - ▾ code ✎   code http://snomed.info/sct ▾   fixed cod   ☐ is pa
    - ▾ coding (*) ✎
      - system ✎
      - version
      - code
      - display
      - userSelected

Middle panel:

Element ID
AllergyIntolerance.code

Cardinality
| 0 | ... | 1 | 0..0 | 0..1 | 0..* | 1..1 | 1..* |

▾ Type(s)
  ▸ CodeableConcept

▾ Valueset binding ✎
  Strength ✎
  extensible ▾
  Description ✎
  Type of the substance/product.
  Value set reference ✎
  http://hl7.org/fhir/ValueSet/substance-code

▸ Fixed value

Right panel (JSON):

```
{
    "id": "AllergyIntolerance.code",
    "path": "AllergyIntolerance.code",
    "short": "Code that identifies the substance or
product which the patient has an allergy or
intolerance to",
    "definition": "Code for a substance or
pharmaceutical product that is considered to be
responsible for the adverse reaction risk (e.g.,
\"Latex\").",
    "binding": {
      "strength": "extensible",
      "description": "Type of the
substance/product.",
      "valueSet":
"http://hl7.org/fhir/ValueSet/substance-code"
    }
},
```

Terminology Services

- CodeSystem, ValueSet and ConceptMap resource naming, identification and versioning
- Setting up and operating a FHIR terminology service
  - Features of Known Servers
- Intensional reference sets versus intensional ValueSets
- Changes to SNOMED CT to improve usage through terminology services
- Update SNOMED CT Search and Data Entry Guide
- SNOMED CT "Universal" Edition
- SNOMED CT canonical CodeSystem resource
- Check and fix ECL in the FHIR spec
- Normal form and normal form terse definition
- Implementation Guide for using SNOMED CT with FHIR
  - Expand (Valueset)
  - FHIR Frequently Asked Questions
    - Accessing Historical Associations
    - Lookup and Expand
  - General Implementation Considerations
  - Implementing Terminology Services with SNOMED CT
    - Find Matches
  - Introduction to using SNOMED with FHIR
  - SNOMED specific behaviours
  - System Architects working with SNOMED and FHIR
  - Terminology Binding
  - Test Suites for using SNOMED with FHIR Servers
  - Working with Languages
- Mechanisms for working with Languages
- Discussion on Global Patient Set (GPS)
- API for FHIR Resource to SNOMED Expression