2019-08-19 - OBSERVABLE Meeting

Date and time: 2019-08-19 20.00 UTC

Zoom Details: https://snomed.zoom.us/j/992630241

Attendees:
- Sarah Harry
- Lee Unangst
- David Sperzel
- Suzanne Santamaria
- Rob Hausam
- Daniel Karlsson
- Donna Pertel
- Farzaneh Ashrafi
- Penni Hernandez

Apologies:
- Apologies

Objectives

Discussion items

See below.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Owner</th>
<th>Notes</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Welcome &amp; apologies</td>
<td>Daniel Karlsson</td>
<td>• Remember recording!</td>
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<tr>
<td>2</td>
<td>Conflicts of interest</td>
<td>Daniel Karlsson</td>
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<tr>
<td>3</td>
<td>Minutes from previous meeting</td>
<td>Daniel Karlsson</td>
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<tr>
<td>4</td>
<td>KL meeting</td>
<td>Daniel Karlsson</td>
<td>There will be a meeting on Tuesday Oct 29 13:30 local time (5:30 UTC). Items to add to the agenda.</td>
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<tr>
<td>Date</td>
<td>Event</td>
<td>Details</td>
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<tr>
<td>2019-02-11</td>
<td>An OWL ontology with Diagnostic test products and susceptibility observables is attached.</td>
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<td></td>
<td>The combination substances are to be inactivated, so modeling cannot rely on use of such concepts.</td>
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<td>An alternative version not using combination substances was presented and discussed.</td>
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<td>2019-03-25</td>
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<tr>
<td>2019-04-08</td>
<td>Presentation of alternatives for susceptibility observables modelling.</td>
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<td></td>
<td>Has use with information models, e.g. FHIR Observation, been tested? No, but given that the observables are expression representations of LOINC content, for which there is ample experience, that is assumed not to be a problem.</td>
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<td>2019-04-08</td>
<td>Can Susceptibility test products be categorized as Pharmaceutical products, and thus be placed under 373873005</td>
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<td>Comparison with allergy tests (skin or blood) can be explored further.</td>
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<tr>
<td>2019-04-08</td>
<td>Presentation of work done by James R. Campbell et al. at UNMC. Observables had been developed for MMSE (Mini-mental state examination). Process, scale type, and property concepts had been created in order to define the MMSE observables. Also, the section about function observables in the Observables UDE document was expanded.</td>
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<td>2019-04-08</td>
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<tr>
<td>2019-05-15</td>
<td>At a meeting 2019-05-15 with the HoT second: (1) use</td>
<td>Susceptibility test product</td>
<td>as values of the</td>
<td>towards</td>
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<tr>
<td>2019-06-10</td>
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<td>2019-07-15</td>
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<tr>
<td>2019-08-19</td>
<td>A new version of the elaboration document added to this page. The new version was discussed and amended and the new version is attached.</td>
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<td>2019-08-19</td>
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**Background**

Draft editorial guidelines: Editorial Guidelines for Diagnostic Products Used for Susceptibility Testing

It was decided to recommend representation the physical form of the susceptibility test product, and also to use the | has presentation strength... | attributes (as opposed to other strength attributes).

Two issues were discovered while re-reading the Inception/Elaboration document for susceptibility testing: 1. "oral form antibiotic susceptibility" exists as components in LOINC tests. 2. when other methods than culture are used, e.g. PCR or sequencing, to determine susceptibility, we might need to use another way of modeling, e.g. beta-lactamase producing resistance towards beta-lactam antibiotics.

While the Susceptibility test products are needed for the mycobacteria tests (with strength-specified antibiotics), we might reconsider the approach for other cases, and use substances where products are not needed, together with a role chain | towards | ( | ) | ingredient | ( | towards | ).

Rob: Aren't all susceptibility tests strength-specified, even though the strength is not part of the definition?


Most tests (mycobacteria tests being an exception) are based on there being a concentration gradient (e.g. disk diffusion, etest, MIC procedures) and thus not a single concentration.

2019-07-15: Medicinal Products will be of the "containing only" flavor. No decision made yet about strength-specified susceptibilities.

There was agreement in the group that Medicinal Products should be used as value of the | towards | attribute for susceptibility observables. The

**Current objective**

Presentation

Give recommendations on representation given two alternatives: (1) use | Susceptibility test product | as values of the | towards | attribute OR (2) use Substance together with | direct substance | = | (Susceptibility test product) | only when needed.

2019-04-08:

Presentation of work done by James R. Campbell et al. at UNMC. Observables had been developed for MMSE (Mini-mental state examination). Process, scale type, and property concepts had been created in order to define the MMSE observables. Also, the section about function observables in the Observables UDE document was expanded.

The level of detail of Observables for individual instrument parts, such as the individual questions of MMSE, was discussed. Alternatively, generic observables, not specific to the instrument, could be used. UNMC preferred having specific observables. The function observables are, according to the current pattern, defined by reference to the processes which are realized by the function, e.g. Orientation in time is realized by the function Ability to orient in time. Other observables can be defined by reference to the processes, e.g. performance of processes. Alternatively, these observables could be defined in terms of the function rather than the processes.

2019-05-20:

Updates to be presented.

2019-06-10: James R. Campbell will provide a report on progress so far and a presentation help for the LOINC committee last week.
A solution based on the process observable pattern was presented. The primitive stated parents were discussed and might be plausible candidates depending on how “ability” is to be interpreted.

Applying the function observable seems possible but difference (| has realization| in stead of | characterizes |) is small. It should be investigated if both patterns are really needed.

As (almost) seen, these are rate observables (mass/time quantity) and those have previously been modeled as process observables. The examples highlight an issue with process observables in that the processes themselves do not have a concept model, but only those parts deemed relevant to observables. E.g. the administration route here cannot be represented using the model.

As a result of collaboration around the eNCPT nutrition terminology quite a few nutrition observables will likely be added to SNOMED CT over the next releases. Current examples include nutrition substance intake, e.g.:

- Estimated protein intake in 24 hours (observable entity)
- Measured protein intake from oral nutrition in 24 hours (observable entity)
- Measured protein intake from enteral nutrition in 24 hours (observable entity)

As (almost) seen, these are rate observables (mass/time quantity) and those have previously been modeled as process observables. The examples highlight an issue with process observables in that the processes themselves do not have a concept model, but only those parts deemed relevant to observables. E.g. the administration route here cannot be represented using the model.

2019-08-19:
Sarah Harry compared with excretion observables in laboratory medicine, in what sense are they same or different.

A page for discussion: Nutrition observables

2019-08-19:
Sarah Harry presented a comparison of “output” observables (slides attached).

Possibly, “output” or “input” (e.g. intake) observables could be represented either using a process observable pattern (using process observable attributes such as | process output |) or a quality observable pattern (using quality observable attributes such as | inheres in | etc.). In order to determine if both patterns are needed or not, a list of example observables from SNOMED CT, LOINC and eNCPT should be collected and discussed.

SNOMED International is working to model nutrition observables together with dietitians’ organizations. Results and questions will be posted on the Nutrition observables sub page.

Meeting Files
More Zoom details

Topic: Observables meeting

Time: this is a recurring meeting. Meet anytime.

Join from PC, Mac, Linux, iOS or Android:
https://snomed.zoom.us/j/992630241

Or Telephone:
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Meeting ID: 992 630 241

International numbers available: https://snomed.zoom.us/zoomconference?m=AQWV2VqAIHYWMcMapl9CoYsaj1TVS7K