ObservationDefinition

Owning work group name
Orders & Observations WG

Committee Approval Date:
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Contributing or Reviewing Work Groups
None

FHIR Resource Development Project Insight ID
Ordering Service Interface Specification Project (1010)

Scope of coverage
An instance of ObservationDefinition represents the definitional aspects of a kind of observation. This resource is used in a catalog of products or services for healthcare. It provides the definition of observations, which are used as input or produced as outcome of these products and services. The focus of the definitional aspects of ObservationDefinition is not on the action of performing observations of that kind. Rather, it is on the outcome of the observations. An instance of ObservationDefinition represents a set of constraints applicable to the value produced by observations of this kind. This set of constraints may have two utilities: 1) It guides the entry of the result of an observation of the kind defined. 2) It helps the consumer of the results of observations of that kind, to interpret properly these results.

For instance, in a catalog of laboratory in vitro diagnostic services, the ObservationDefinition resources describe the observations that should be provided by the orderer alongside an ordered service (questions asked at order entry or at specimen collection, prior results) as well as the observations that will be reported once the service has been performed.

In a catalog of medications, ObservationDefinition resources can be used to describe observations the result thereof need to be checked against the prescription of a particular medicinal product (therapeutic range, units ...)

In the catalog of tests of an in vitro diagnostic device, ObservationDefinition resources can be used to characterize (absolute range, unit, decimal precision, critical values ...) the observations that will be produced by the IVD tests performed by the device.

ObservationDefinition may be used to characterize observations from any discipline.
Resource appropriateness[edit | edit source]

ObservationDefinition is a definitional resource conformant to the Definition pattern.

Like an instance of Observation, an instance of ObservationDefinition has a code, which identifies the kind of observation that is expected. Unlike an instance of Observation, though, an instance of ObservationDefinition does not have a value, since it is in definitional mood. The instance of ObservationDefinition has the properties that characterize the values expected from observations complying with this definition, such as: data types usable for value, multiple values allowed or not, various qualified ranges for numeric or ordinal results, various qualified value sets for coded values, units, decimal precision ...

In other words, an instance of ObservationDefinition acts as a set of constraints applicable to any instance of Observation claiming conformance to this definition.

ObservationDefinition instances lay in catalogs of products or services for healthcare, mostly as supportive resources to the entries of these catalogs. An example is: The definition of a "body temperature" observation to be provided at entry of an arterial blood gas service order.

Expected implementations[edit | edit source]

- Cognitive Medical Systems, Inc
- Intermountain Healthcare
- Phast
- Medlinx
- Quest Diagnostics

Content sources[edit | edit source]

One major source of specifications is represented by the electronic Directory of Services (eDOS) implementation guide of HL7 v2.x messages of chapter 8 "Master files". Although this implementation guide is built for the US realm, most of its technical content (definitions of services, specimens, observations) is recognized to cover the universal realm.

Example Scenarios[edit | edit source]

- A physician finds out which service to order to a diagnostic service facility, by querying the catalog of services of this facility and checking the output observations that are produced by each service.
- A CPOE application placing an order for a diagnostic service to a laboratory, discovers in the catalog entry describing this service what are the observations to provide at order entry and how to enter the results of those observations.
- A physician prescribing a medicinal product, checks from the catalog, which observation is to be included into the electronic prescription.

Resource Relationships[edit | edit source]

- Resource ObservationDefinition is referenced by resource ActivityDefinition. This enables items of catalogs, representing healthcare services or products, to declare the observations, which are consumed or produced by these items.
- It should also be considered that Observation.basedOn be able to reference ObservationDefinition resource.
- Resources Observation can be instantiated from the definition provided by ObservationDefinition (no operation defined yet for this purpose).

Timelines[edit | edit source]

This new resource is expected to be part or R4, like all the other pieces of catalogs of healthcare products/services. It will be part of the Catalog tracks of FHIR connectathons, starting with January 2018.

gForge Users[edit | edit source]

N/A: Identified contributors already have a gForge account.
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When Resource Proposal Is Complete[edit | edit source]

When you have completed your proposal, please send an email to FMGcontact@HL7.org

FMG Notes