

openEHR: Clinical Knowledge Governance

A journey

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openEHR



Aim

- ▶ Practical insight into the issues and challenges facing clinical content governance
- ▶ Clinical Knowledge Framework
 - End-to-end management of clinical knowledge assets
- ▶ Governance policies
- ▶ Quality metrics
- ▶ Principles of Web2.0 collaboration
- ▶ *Tensions*

Framework Requirements

- ▶ Single instance
 - Managing a range of Clinical Knowledge Assets
 - Cohesive primary asset library
 - Publication lifecycle vs Technical versioning
 - Domain Expert verification vs Technical validation
 - Web 2.0 Collaboration & verification processes
 - Multilingual
 - Distribution and implementation
 - Variable reach – international → organisational
- ▶ Asset sharing between instances
- ▶ Multi-instance Federation

In response...

- ▶ Online tool
- ▶ Underpinned by
 - 3rd party digital asset management tool
- ▶ Functions
 1. Library
 2. Collaboration Portal
 3. Governance Processes

www.openEHR.org.knowledge



Clinical Knowledge Manager

All Archetypes -

Team: All teams ▾

+ -

- ▶ EHR Archetypes
 - ▶ Cluster
 - ▶ Composition
 - ▶ Element
 - ▶ Entry
 - ▶ Action
 - ▶ Evaluation
 - ▶ Observation
 - ▶ Instruction
 - ▶ Admin
 - ▶ Section
 - ▶ Structure
- ▶ Demographic Model Archetypes

New and modified Archetypes +

Waiting for www.openehr.org...

Resource Domain & Profession EHR Class Purpose Subject Location Country & Language

Search for: ⓘ

- Restrict search to main data ⓘ
- Complete search ⓘ

Advanced

Search for... Archetypes Templates Termsets

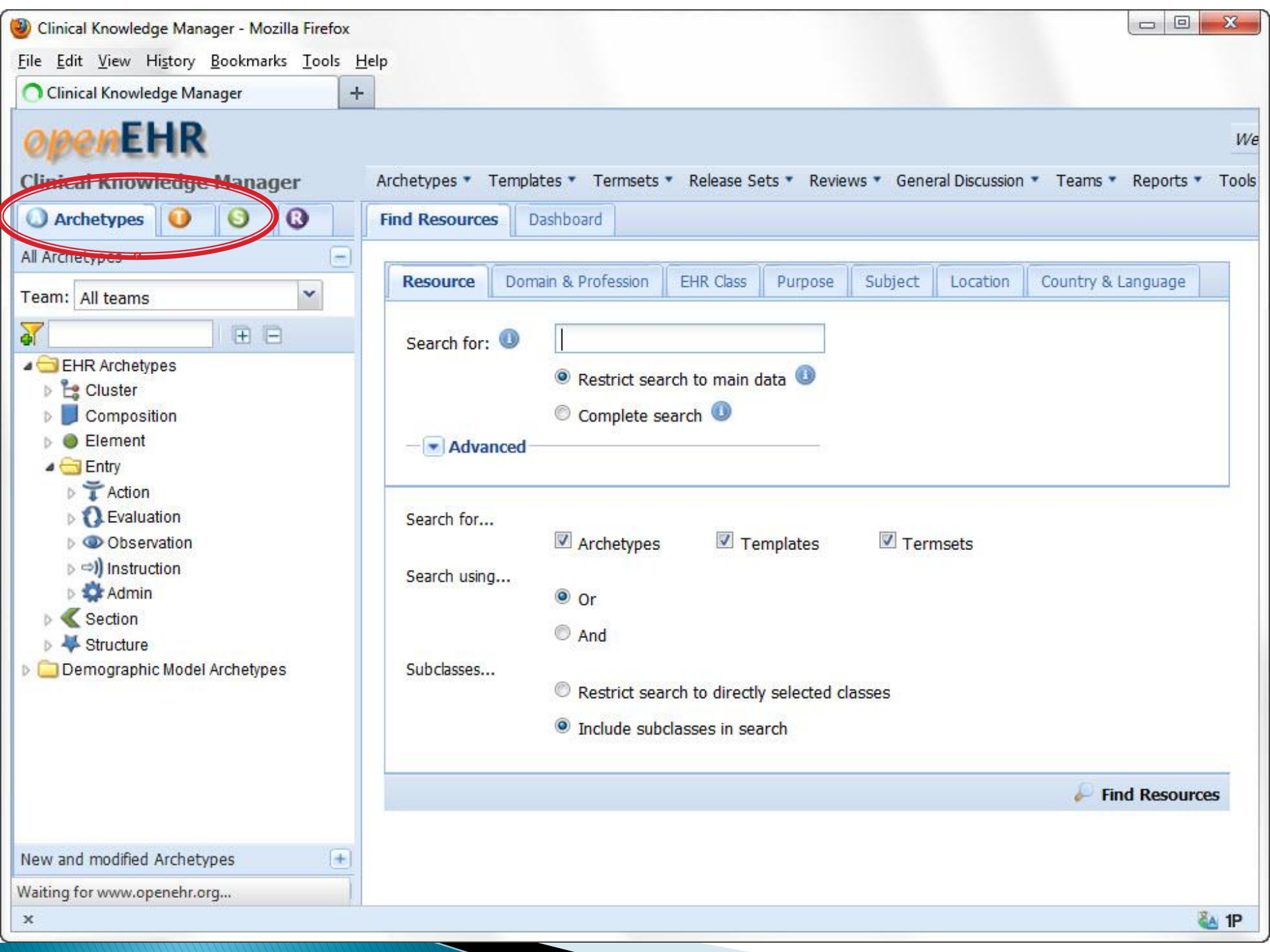
Search using...
 Or
 And

Subclasses...
 Restrict search to directly selected classes
 Include subclasses in search

Find Resources

Range of Clinical Knowledge Assets

- ▶ Primary
 - Archetypes
 - Templates
 - Terminology Reference Sets
- ▶ Secondary
 - Generated directly from the Primary assets
 - XML
 - Mindmaps
- ▶ Related
 - Documentation
 - Design
 - Reference
 - Sample data
 - Implementation
 - Manually generated derivatives eg CDA fragments



All Archetypes
Team: All teams

Filter icons (+, -)

- EHR Archetypes
 - Cluster
 - Composition
 - Element
 - Entry
 - Action
 - Evaluation
 - Observation
 - Instruction
 - Admin
 - Section
 - Structure
 - Demographic Model Archetypes

New and modified Archetypes +

Waiting for www.openehr.org...

Resource Domain & Profession EHR Class Purpose Subject Location Country & Language

Search for: [input field]

- Restrict search to main data
- Complete search

Advanced

Search for... Archetypes Templates Termsets

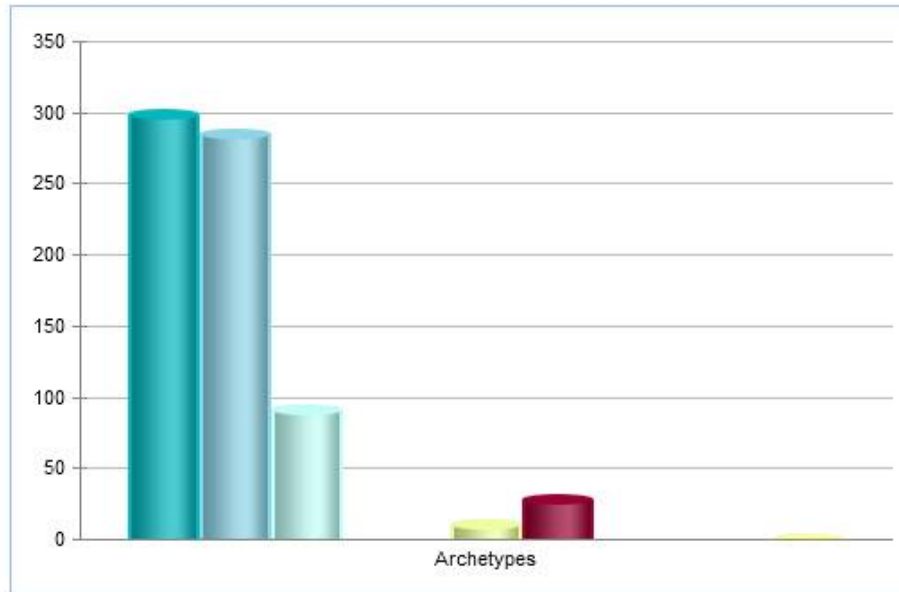
Search using...
 Or
 And

Subclasses...
 Restrict search to directly selected classes
 Include subclasses in search

Find Resources

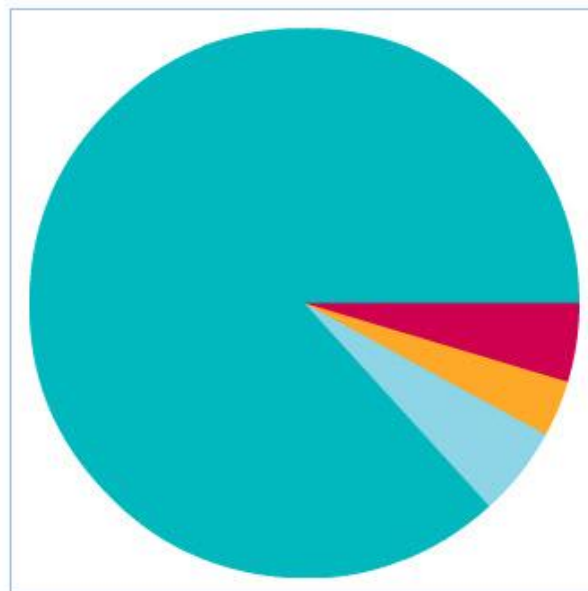
Archetype Statistics

Overall number of Archetypes



Type	Count	Legend
Total	302	
Total active	288	
Total active specialised	95	
Total modified - last week	0	
Total modified - last month	14	
Total modified - last year	32	
Total created - last week	0	
Total created - last month	0	
Total created - last year	4	

Status



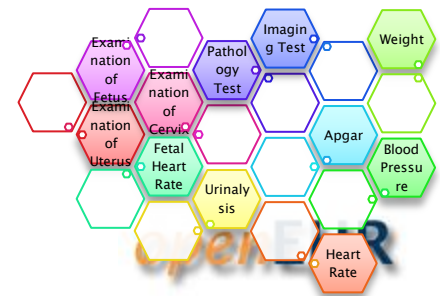
states	Count	Legend
Draft	262	
Team review	16	
Review Suspended	0	
Published	10	
Reassess	0	
Rejected	14	
Deprecated	0	

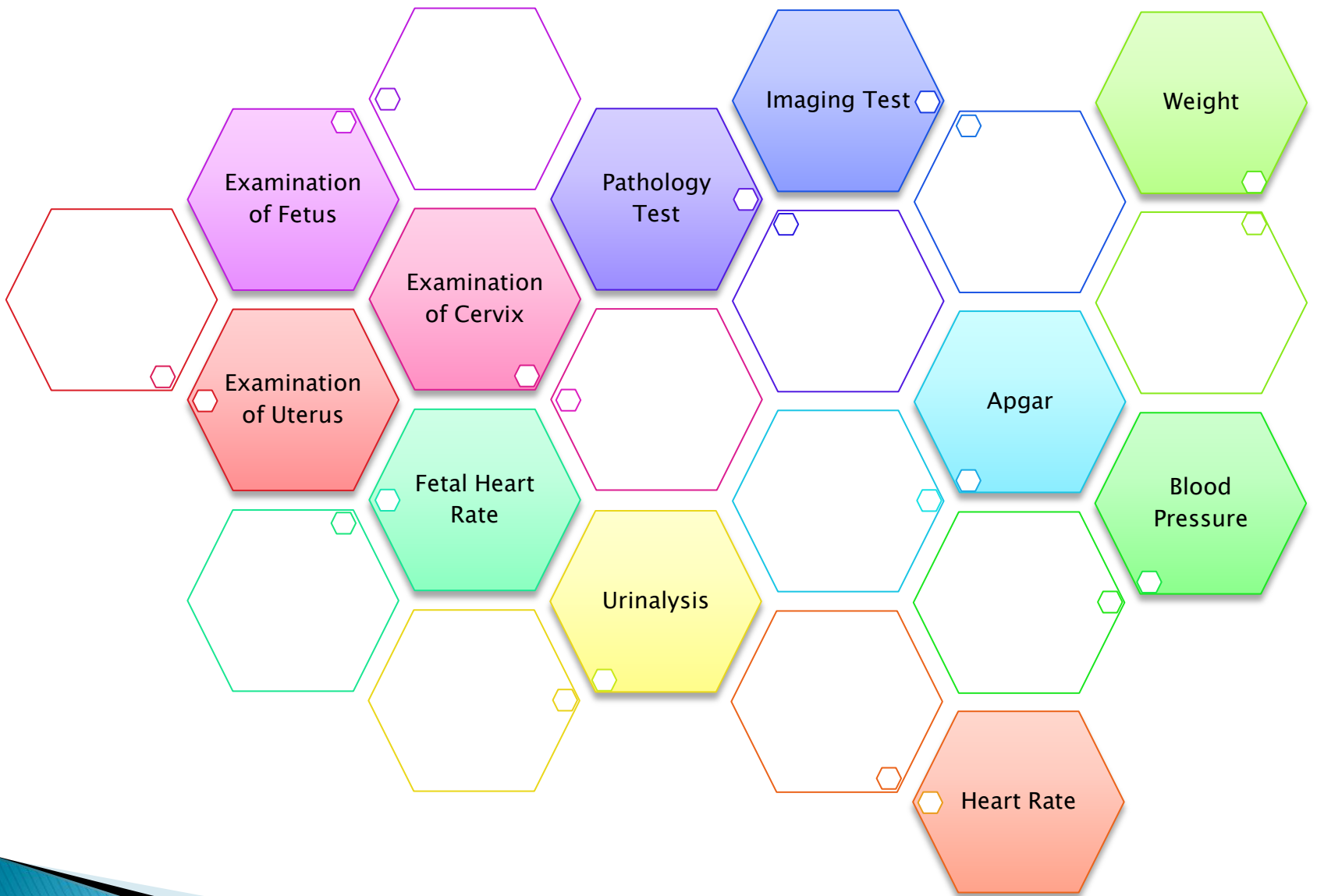
Coherent primary asset library

A pool of assets that work together

Science or art?

- ▶ Identify broad overarching patterns
 - Entry models
 - Clinical data
- ▶ Determine granularity
 - Optimise balance between standalone models vs re-use
- ▶ Complementary models – minimise gaps
- ▶ Minimise overlap







Clinical Knowledge Manager

Archetypes

Find Resources Dashboard

- All Archetypes
- New and modified Archetypes
- Checked-out Archetypes
- Archetype watchlist
- Latest search

Search

- EHR Archetypes
 - Cluster
 - Laboratory result annotation (v1)
 - Macroscopic findings - Colorectal staging (v1)
 - Macroscopic findings - Lung cancer (v1)
 - Microscopic findings - Breast cancer (v1)
 - Microscopic findings - Colorectal staging (v1)
 - Microscopic findings - Lung cancer (v1)
 - Microscopic findings - Lymphoma (v1)
 - Microscopic findings - Melanoma of skin (v1)
 - Microscopic findings - Prostate cancer (v1)
 - Physical properties of an object (v1)
 - Precise anatomical location (v1)
 - Specimen preparation (v1)
 - Tumour - Colorectal staging (v1)
 - Tumour - direct invasion (v1)
 - Tumour - Lymph node metastasis (v1)
 - Entry
 - Observation

Search again

Search results for **pathology** within the main elements of Archetypes and Templates and Termsets on the Bank that are active.

Found **36 Archetypes**. Found no Templates. Found no Termsets.

Histopathology Details

Archetype ID openEHR-EHR-OBSERVATION.lab_test-histopathology.v1
Status Draft

Microscopic findings - Melanoma of skin Details

Archetype ID openEHR-EHR-CLUSTER.microscopy_melanoma.v1
Status Team review
Location Keyword: pathology

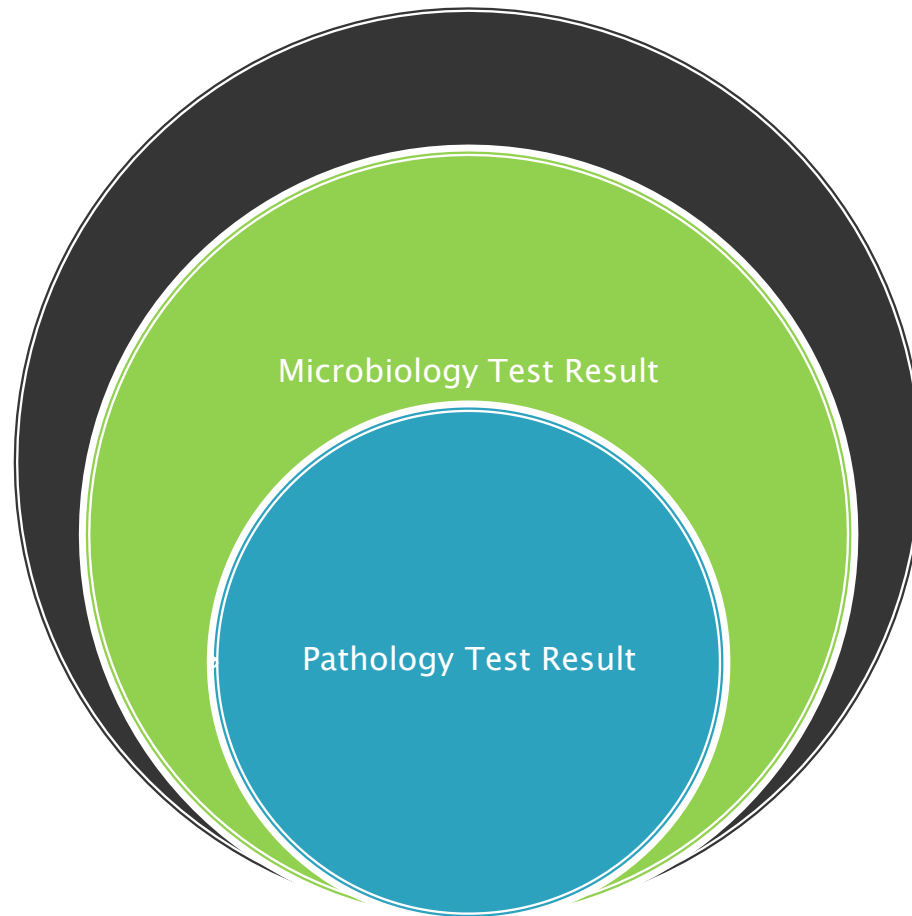
Microscopic findings - Lymphoma Details

Archetype ID openEHR-EHR-CLUSTER.microscopy_lymphoma.v1
Status Team review
Location Keyword: pathology

Laboratory test Details

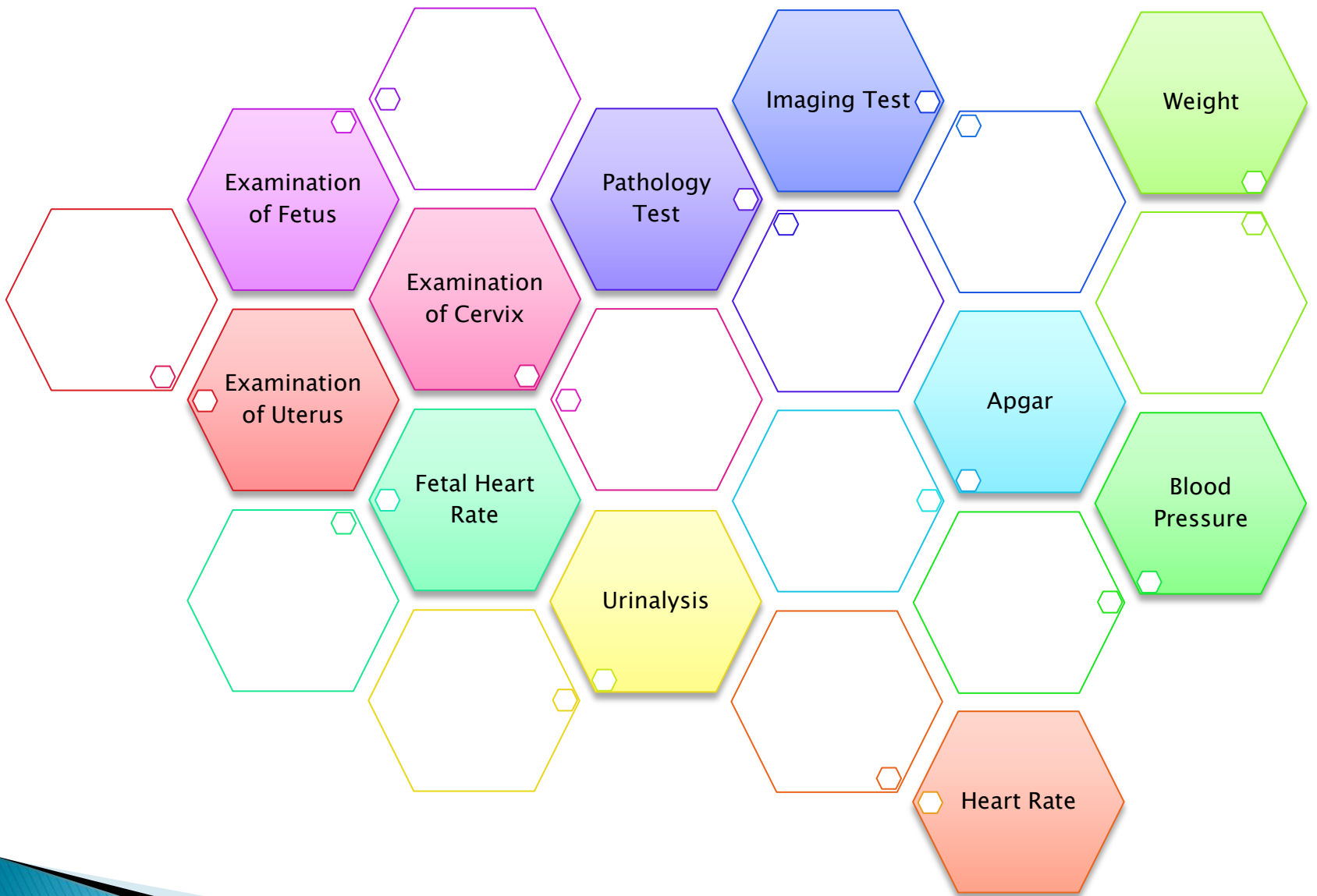
Archetype ID openEHR-EHR-OBSERVATION.lab_test.v1
Status Draft

Families of assets



Family traits can be misleading!

- ▶ Seemingly related clinical patterns can turn out to be variant in practice
 - E.g Cancer pathology reporting practice
 - Node involvement
 - Tumour margins
 - Tissue involvement
 - But all cancers are unique with unique clinical practice and associated reporting requirements
- ▶ “Is-a” relationships can be misleading in terms of archetype content





Clinical Knowledge Manager

All Templates

Team: All teams

Filter

- EHR Templates
 - Cluster
 - Composition
 - Demo with hide-on-form
 - eReferral
 - Element
 - Entry
 - Action
 - Evaluation
 - Observation
 - Instruction
 - Admin
 - Section
 - Structure
- Demographic Model Templates

New and modified Templates

Checked-out Templates

Template watchlist

eReferral



EREFERRAL

Purpose

Not Specified

Archetype ID	openEHR-EHR-COMPOSITION.referral.v1
Template ID	e5f533a2-7480-4b53-91f6-9b83433f36ab
MetaDataSet: Sample Set	Template metadata sample set

REFERRAL DOCUMENT

Collapse All Show Annotations

[+/-] other_context [1]

T Requestor Identifier

[+/-] Patient

[+/-] Personal name

[+/-] Personal name [0..*]

[+/-] Structured name

T Given name [1]



Clinical Knowledge Manager

Navigation icons: Home, Info, Termsets, Reports

Find Resources Dashboard

All Termsets

Team: All teams

Search input field with filter icon

- ABO Blood Groups
 - ABO Blood Groups - simple
- All Bacteria
- All Infectious Agents

- New and modified Termsets
- Checked-out Termsets
- Termset watchlist

Resource Domain & Profession EHR Class Purpose Subject Location Country & Language

Search for:

- Restrict search to main data
- Complete search

Advanced

Search for... Archetypes Templates Termsets

Search using... Or And

Subclasses... Restrict search to directly selected classes Include subclasses in search

Find Resources

Publication vs Technical Versioning

Publication

- ▶ Ungoverned
- ▶ Governed
 - Non-operational
 - PreDraft
 - Draft
 - Team Review
 - Review suspended
 - Rejected
 - Withdrawn
 - Operational
 - Published
 - Under Reassessment
 - Superseded

Technical

- ▶ Archetype Identification
- ▶ Namespaces
- ▶ Versioning/Revisions
 - Versioning rules
 - Technical validation
 - ? Semver Rules

Archetype Identification

- ▶ Unique identifier of every archetype / template
 - openEHR-EHR-EVALUATION.adverse_reaction.v1
 - Held in archetype and in data instances
 - Specialisation syntax allows specialisation lineage to be parsed
 - openEHR-EHR-EVALUATION.adverse_reaction-**british**.v1
- ▶ GUID / OID as alternatives?
 - Some value but having human readable name is helpful
- ▶ However, only unique within a single repository
 - Need a method of dis-ambiguating across repositories
 - = **Namespacing**

Archetype Namespacing

- ▶ Must uniquely identify the archetype across domains i.e. multiple repositories.
- ▶ Proposed solution
 - Reverse URN prefix
 - **org.openehr** :: openEHR-EHR-EVALUATION.adverse_reaction.v1
 - Identifies the original archetype authoring domain
 - not the current governing domain, since archetypes may move between domains

Moving domains ...

- ▶ Lessons from SNOMED-CT
 - Originally SCT concepts changed namespaces as they moved control
 - Loss of backward compatibility
 - Now SCT concepts always retain originating namespaces
- ▶ So if a NEHTA archetype moves to openEHR CKM it remains as
 - ▶ `au.gov.nehta::openEHR-EHR-EVALUATION.adverse_reaction.v1`
- ▶ Even though the current governing domain is now org.openehr
 - The current governing namespace is identified within the archetype metadata

Specialisation naming

▶ Currently

- `openEHR-EHR-EVALUATION.adverse_reaction-british.v1`

▶ Add namespacing ...

- `org.openEHR::openEHR-EHR-EVALUATION.adverse_reaction-british.v1`

▶ but the specialisation original author is actually NHS-UK not openEHR.org

- And must be reflected in the archetypeID
- `org.openEHR::openEHR-EHR-EVALUATION.adverse_reaction-uk.nhs::british.v1`

▶ Messy++

- ▶ loses the human readability

Specialisation naming solution

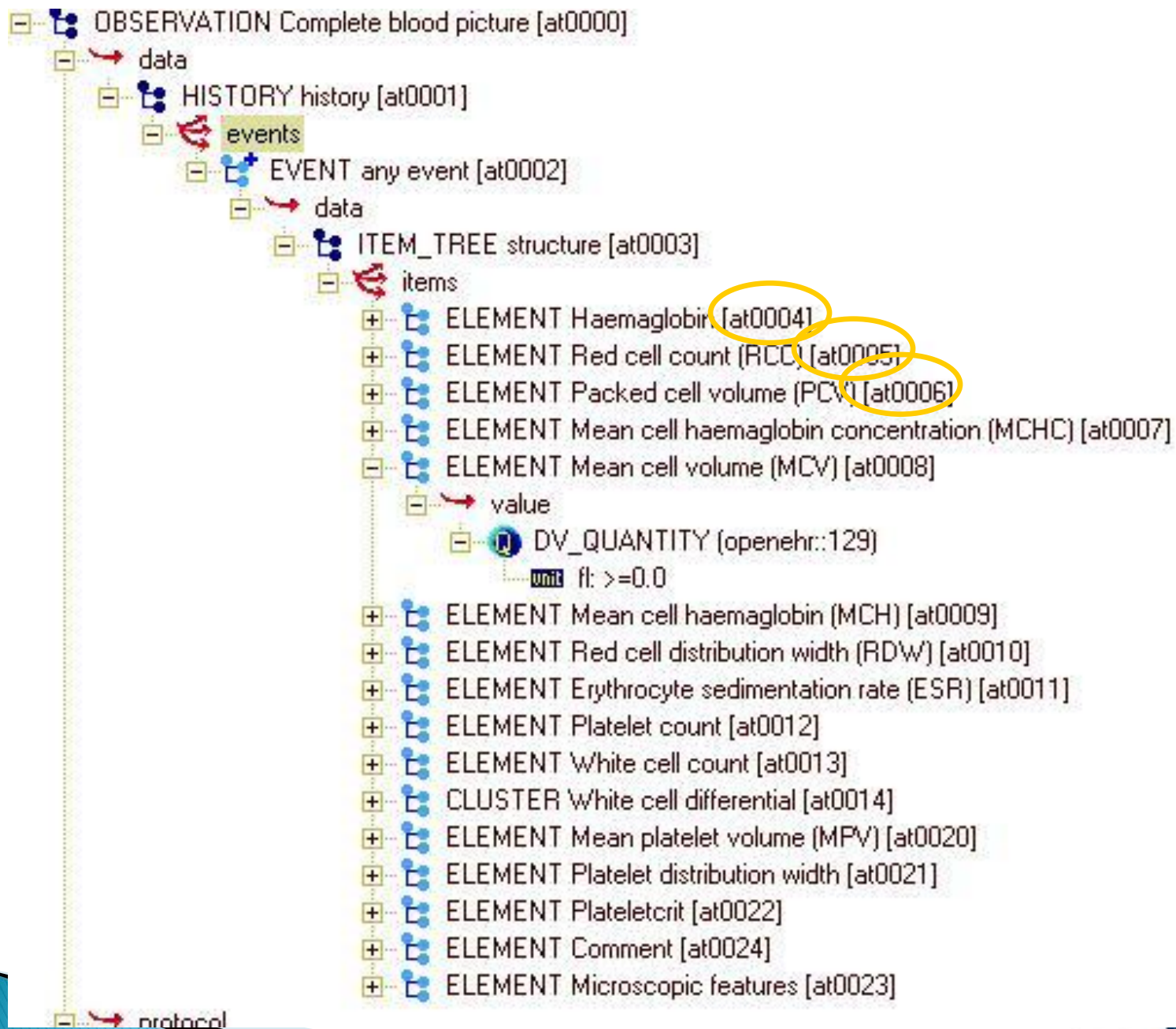
- ▶ ArchetypeID will only carry the authoring domain of the specialised archetype
- ▶ `openEHR-EHR-EVALUATION.adverse_reaction-british.v1`
(assuming that the British specialisation was created by NHS UK)
- ▶ Becomes
 - **Uk.nhs:** `openEHR-EHR-EVALUATION.adverse_reaction-british.v1`
 - And the specialisation lineage is carried within the archetype
 - i.e. we cannot rely on archetypeID syntax to parse the lineage

Archetype Versioning Rules

- ▶ We know that archetypes will change
 - therefore the semantics will potentially change
- ▶ Key Technical requirement is to preserve the unique path to each node in the persisted data
 - or querying cannot reliably retrieve that data
- ▶ Other ‘softer’ semantic issues
 - E.g. change in the meaning of a node
 - “Causative agent” => “Severity”

Archetype paths

- All nodes in an archetype can be referenced uniquely by an Xpath style path
- This path is not affected by how the archetype is used in templates or anywhere else
- Paths are therefore safe for querying use
- Paths are enabled by presence of node-id on archetype object nodes – the ‘at-codes’



```
/data[at0001]
/data[at0001]/events[at0002]
/data[at0001]/events[at0002]/data[at0003]
/data[at0001]/events[at0002]/data[at0003]/items[at0004]
/data[at0001]/events[at0002]/data[at0003]/items[at0004]/value
/data[at0001]/events[at0002]/data[at0003]/items[at0005]
/data[at0001]/events[at0002]/data[at0003]/items[at0005]/value
/data[at0001]/events[at0002]/data[at0003]/items[at0006]
/data[at0001]/events[at0002]/data[at0003]/items[at0006]/value
/data[at0001]/events[at0002]/data[at0003]/items[at0006]/value/denominator
/data[at0001]/events[at0002]/data[at0003]/items[at0006]/value/is_integral
/data[at0001]/events[at0002]/data[at0003]/items[at0006]/value/numerator
/data[at0001]/events[at0002]/data[at0003]/items[at0006]/value/type
/data[at0001]/events[at0002]/data[at0003]/items[at0007]
/data[at0001]/events[at0002]/data[at0003]/items[at0007]/value
/data[at0001]/events[at0002]/data[at0003]/items[at0008]
/data[at0001]/events[at0002]/data[at0003]/items[at0008]/value
/data[at0001]/events[at0002]/data[at0003]/items[at0009]
/data[at0001]/events[at0002]/data[at0003]/items[at0009]/value
/data[at0001]/events[at0002]/data[at0003]/items[at0010]
/data[at0001]/events[at0002]/data[at0003]/items[at0010]/value
/data[at0001]/events[at0002]/data[at0003]/items[at0010]/value/denominator
/data[at0001]/events[at0002]/data[at0003]/items[at0010]/value/numerator
/data[at0001]/events[at0002]/data[at0003]/items[at0010]/value/type
/data[at0001]/events[at0002]/data[at0003]/items[at0011]
/data[at0001]/events[at0002]/data[at0003]/items[at0011]/value
/data[at0001]/events[at0002]/data[at0003]/items[at0012]
/data[at0001]/events[at0002]/data[at0003]/items[at0012]/value
/data[at0001]/events[at0002]/data[at0003]/items[at0013]
/data[at0001]/events[at0002]/data[at0003]/items[at0013]/value
/data[at0001]/events[at0002]/data[at0003]/items[at0014]
```

```
/data[history]
/data[history]/events[any event]
/data[history]/events[any event]/data[structure]
/data[history]/events[any event]/data[structure]/items[Haemoglobin]
/data[history]/events[any event]/data[structure]/items[Haemoglobin]/value
/data[history]/events[any event]/data[structure]/items[Red cell count (RCC)]
/data[history]/events[any event]/data[structure]/items[Red cell count (RCC)]/value
/data[history]/events[any event]/data[structure]/items[Packed cell volume (PCV)]
/data[history]/events[any event]/data[structure]/items[Packed cell volume (PCV)]/value
/data[history]/events[any event]/data[structure]/items[Packed cell volume (PCV)]/value/denominator
/data[history]/events[any event]/data[structure]/items[Packed cell volume (PCV)]/value/is_integral
/data[history]/events[any event]/data[structure]/items[Packed cell volume (PCV)]/value/numerator
/data[history]/events[any event]/data[structure]/items[Packed cell volume (PCV)]/value/type
/data[history]/events[any event]/data[structure]/items[Mean cell haemoglobin concentration (MCHC)]
/data[history]/events[any event]/data[structure]/items[Mean cell haemoglobin concentration (MCHC)]/value
/data[history]/events[any event]/data[structure]/items[Mean cell volume (MCV)]
/data[history]/events[any event]/data[structure]/items[Mean cell volume (MCV)]/value
/data[history]/events[any event]/data[structure]/items[Mean cell haemoglobin (MCH)]
/data[history]/events[any event]/data[structure]/items[Mean cell haemoglobin (MCH)]/value
/data[history]/events[any event]/data[structure]/items[Red cell distribution width (RDW)]
/data[history]/events[any event]/data[structure]/items[Red cell distribution width (RDW)]/value
/data[history]/events[any event]/data[structure]/items[Red cell distribution width (RDW)]/value/denominator
/data[history]/events[any event]/data[structure]/items[Red cell distribution width (RDW)]/value/numerator
/data[history]/events[any event]/data[structure]/items[Red cell distribution width (RDW)]/value/type
/data[history]/events[any event]/data[structure]/items[Erythrocyte sedimentation rate (ESR)]
/data[history]/events[any event]/data[structure]/items[Erythrocyte sedimentation rate (ESR)]/value
/data[history]/events[any event]/data[structure]/items[Platelet count]
/data[history]/events[any event]/data[structure]/items[Platelet count]/value
/data[history]/events[any event]/data[structure]/items[White cell count]
/data[history]/events[any event]/data[structure]/items[White cell count]/value
/data[history]/events[any event]/data[structure]/items[White cell count]/value/denominator
```

(Human readable version)

Versioning validation

- ▶ New Versions
 - Broken path or other non-backward compatible changes
 - Essentially a new archetype (structurally)
- ▶ Revisions
 - Backward compatible change
 - Often addition of new element or change to text description
- ▶ Authors want to avoid new versions of published archetypes
 - Repository should perform version validity checking on upload of a modified archetype

Version number progression

- ▶ Version numbering for published archetypes is straightforward
 - V1.1 -> V2.1 if version change
 - V1.1 -> V1.2 if revision change
- ▶ But how to handle drafts and “re-drafts”
 - Current thinking – use draft suffix
 - V0 for pre-draft ungoverned “incubator” archetypes
 - v1 draft -> v1 -> v2draft -> v2.1 (new version)
 - v1 draft -> v1 -> v2draft -> v1.2 (revision)
 - Compatible with semver.org proposals for semantic API versioning

“Release candidate” lifecycle state?

- ▶ Proposed key lifecycle states
 - PreDraft
 - Draft
 - Team Review
 - **Release Candidate ??**
 - Published
- ▶ Common practice in software development
 - = HL7 Draft For for Trial Use
 - Allows live trials for bleeding edge developers
 - But can we promise not to ‘break’ an RC archetype before publication?

Governance Processes

- ▶ Individual Primary Asset Management
- ▶ Group Asset Management
- ▶ User Management

Community

Individual Primary Asset Management

- Upload
- Verification
 - Clinical content
 - Terminology binding
 - Translations
- Technical validation
- Secondary Assets and Related Assets
- Maintenance
- Quality metrics

Adverse Reaction

English Adopt Archetype

Archetype: Adverse Reaction (openEHR-EHR-EVALUATION.adverse_reaction.v1)

Header Data Protocol Reference model

Archetype ID	openEHR-EHR-EVALUATION.adverse_reaction.v1
Concept name	Adverse Reaction
Concept description	A harmful or undesirable, unexpected effect associated with exposure to any substance or agent, including food, plants, animals, venom from animal stings, or a medication at therapeutic or sub-therapeutic doses.
Keywords	reaction, allergy, allergic, adverse, event, effect, sensitivity, intolerance, hypersensitivity, side effect, toxicity, interaction, drug, food, medication, agent, substance, immune, non-immune, chemical
Copyright	© openEHR Foundation
Purpose	To record information about any harmful, desirable or unexpected reaction to a substance or agent, including: - immune mediated reactions Types I-IV (including true allergic reactions and hypersensitivities), and - non-immune mediated reactions (including pseudoallergic reactions, side effects, intolerances, drug toxicities (eg Gentamicin), drug-drug interactions, food-drug interactions, drug-disease interactions and idiosyncratic reactions).

Previous Next

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Adverse Reaction

English Adopt Archetype

Archetype: Adverse Reaction (openEHR-EHR-EVALUATION.adverse_reaction.v1)

Header Data Protocol Reference model

Structure: Tree
Occurrences: 1..1 (mandatory)
Cardinality: 1..* (mandatory, repeating, unordered)

T	Substance/Agent Text <input type="checkbox"/> Occurrences: 1..1 (mandatory)	Identification of a substance, agent, or a class of substance, that is considered to be responsible for the Adverse Reaction. Comment: Substance/Agent should be coded with a terminology, where possible.	Free or coded text
	Absolute Contraindication? Boolean <input type="checkbox"/> Occurrences: 0..1 (optional)	Is administration of this Substance/Agent absolutely contraindicated in this individual? Comment: A flag indicating that a clinician has identified a propensity for a serious reaction upon further exposure to the Substance/Agent. Record as True if the clinician recommends that deliberate or voluntary exposure to, or administration of, the Substance/Agent should be prevented in future.	Allowed values: {true}
T	Future Use Text <input type="checkbox"/> Occurrences: 0..1 (optional)	Narrative description of clinician instructions or advice related to future exposure to, or administration of, the Substance/Agent.	Free or coded text
T	Overall Comment	Additional narrative about the Adverse	Free or coded text

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Adverse Reaction


Archetype: Adverse Reaction (openEHR-EHR-EVALUATION.adverse_reaction.v1)

Header Data **Protocol** Reference model

Structure: Tree


Occurrences: 1..1 (mandatory)


Cardinality: 0..* (optional, repeating, unordered)

	Reaction Reported? Boolean <input type="checkbox"/> Occurrences: 0..1 (optional)	Was the Adverse Reaction reported to a regulatory body?	
T	Report Comment Text <input type="checkbox"/> Occurrences: 0..1 (optional)	Additional narrative about the Adverse Reaction Report, including the reason for non-reporting, if required.	Free or coded text
URI	Adverse Reaction Report URI <input type="checkbox"/> Occurrences: 0..* (optional, repeating)	Link to an Adverse Reaction Report sent to a regulatory body.	
URI	Supporting Clinical Record Information EHR URI Occurrences: 0..1 (optional)	Link to further information about the presentation and findings that exist elsewhere in the health record, including allergy test reports. Comment: For example, presenting symptoms, examination findings, diagnosis etc.	

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Adverse Reaction

Archetype: Adverse Reaction (openEHR-EHR-EVALUATION.adverse_reaction.v1)

Header Data Protocol Reference model

Although most clinical content is modelled directly in archetypes, the underlying openEHR reference model 'class' provides a small number of universal attributes which will always be available as if they were part of the archetype itself. A brief description of the parent archetype class and clinically important attributes are listed below.



EVALUATION

An evaluative statement, usually based on some sort of extrapolation by a clinician from clinical evidence which has been gathered or measured. Examples include: a clinical opinion, goal or interpretation such as a diagnosis or adverse reaction

Detailed documentation [PDF](#)
[UML](#)

Attributes

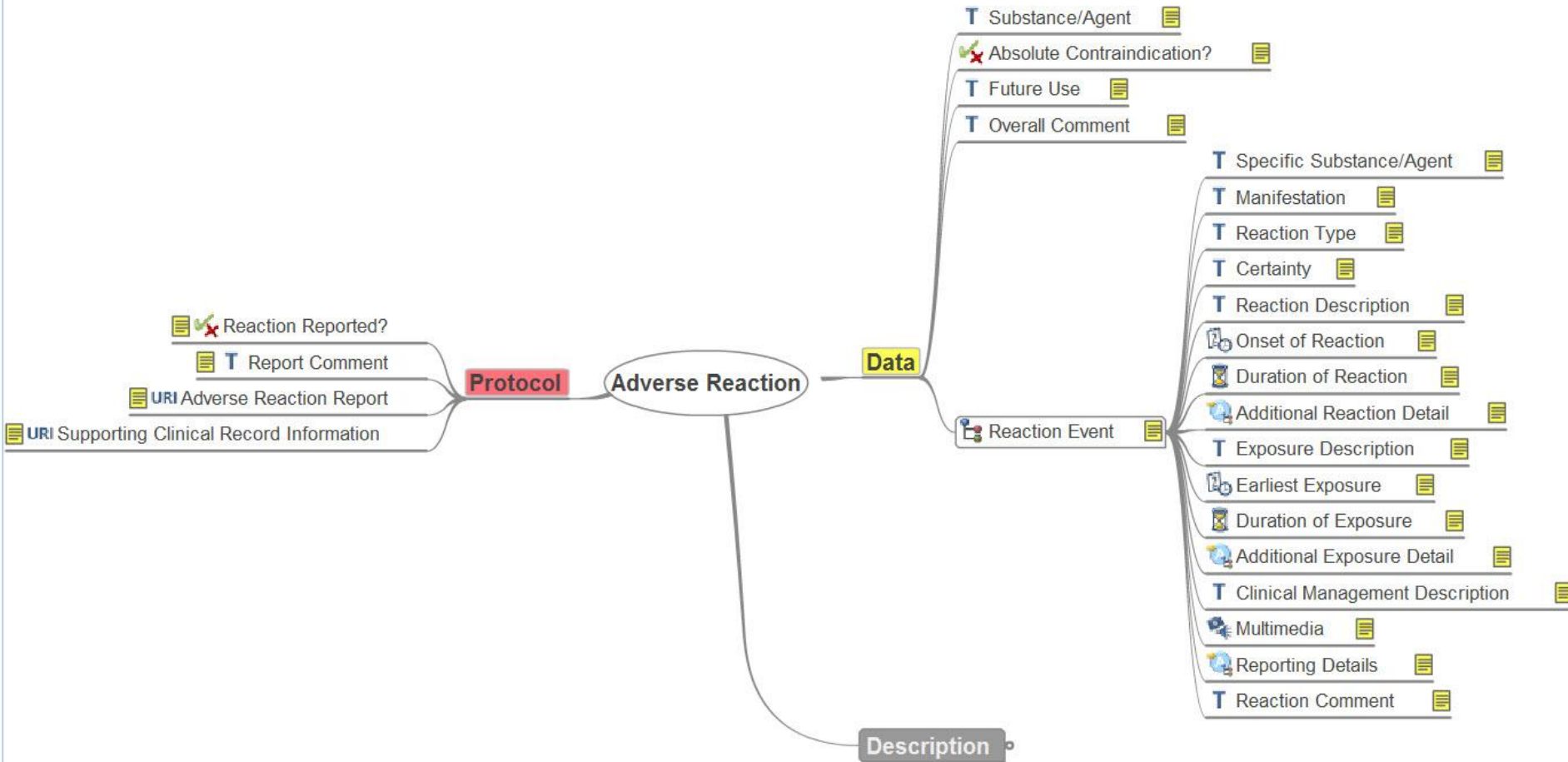
Information Provider (RM: provider) Party Proxy Occurrences: 0..1	A record of the person or agent who provided the information. This could include the patient; a patient agent, e.g. parent, guardian; the clinician or a device/software. It is generally only used when the information provider needs to be made explicit - that is, it is NOT the overall Composition Author/composer or other identified individuals/parties participating in the event. PDF UML
Subject of Care (RM: subject) Party Proxy Occurrences: 1..1	The human subject referred to in this Evaluation. This is usually the Subject of the EHR, that is the patient. However in certain circumstances it may refer to others, for example an organ donor, a fetus, or a family member. PDF UML

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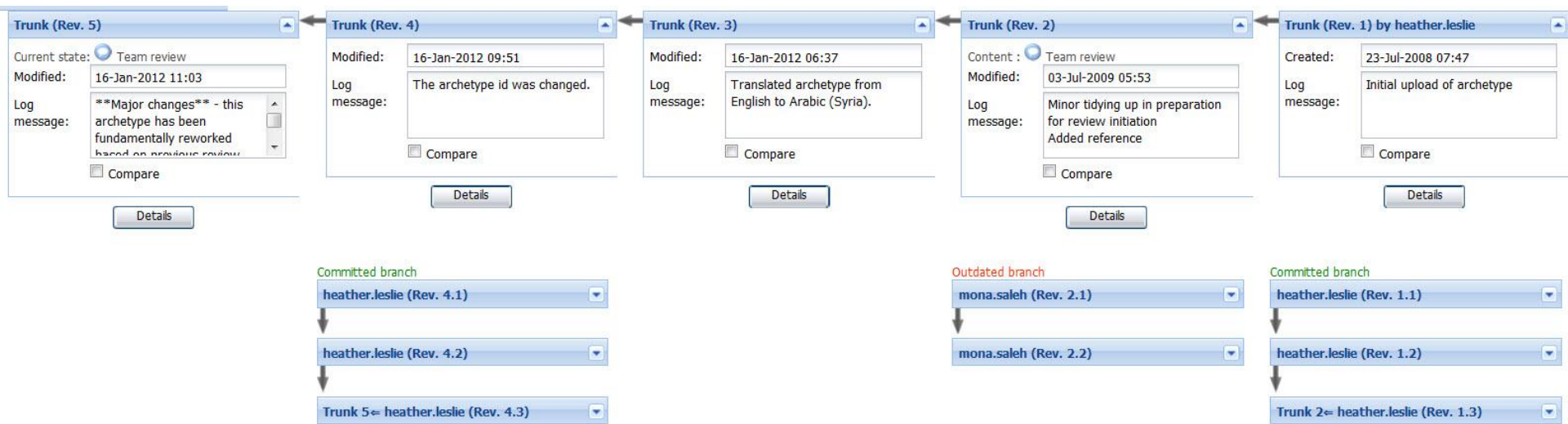
Adverse Reaction

English Adopt Archetype

```
definition
  EVALUATION[at0000] matches { -- Adverse Reaction
    data matches {
      ITEM_TREE[at0001] matches { -- Tree
        items cardinality matches {1..*; unordered} matches {
          ELEMENT[at0002] matches { -- Substance/Agent
            value matches {
              DV_TEXT matches {*}
            }
          }
          ELEMENT[at0004] occurrences matches {0..1} matches { -- Absolute Contraindication?
            value matches {
              DV_BOOLEAN matches {
                value matches {True}
              }
            }
          }
          ELEMENT[at0049] occurrences matches {0..1} matches { -- Future Use
            value matches {
              DV_TEXT matches {*}
            }
          }
          ELEMENT[at0006] occurrences matches {0..1} matches { -- Overall Comment
            value matches {
              DV_TEXT matches {*}
            }
          }
          CLUSTER[at0009] occurrences matches {0..*} matches { -- Reaction Event
            items cardinality matches {1..*; unordered} matches {
              ELEMENT[at0010] occurrences matches {0..1} matches { -- Specific Substance/Agent
                value matches {
                  DV_TEXT matches {*}
                }
              }
              ELEMENT[at0011] occurrences matches {0..*} matches { -- Manifestation
                value matches {
                  DV_TEXT matches {*}
                }
              }
            }
          }
        }
      }
    }
  }
```

MD5 Hash: 

4989d17c5a42d86a397622e85b14ddb





Adverse Reaction

Resource Centre

Reference and Design Documentation

Add Document/Link



HL7 Individual Case Safety Report Release 1 (Link)

Description	The HL7 Individual Case Safety Report (ICSR) is a Health Level Seven (HL7) standard for the exchange of adverse event or product problem reports to public health, patient safety, healthcare quality improvement organizations or regulatory authorities. Release 1 of the standard supports reporting for drugs, therapeutic biologics, blood derivatives, devices and vaccines.	 
Source	HL7 - http://www.hl7.org/v3ballot/html/welcome/environment/index.htm	
Link	http://www.hl7.org/v3ballot/html/domains/uvrr/ICSR_R1_GUIDE.pdf	
Type	Reference Document	
Upload	heather.leslie (16-Jul-2009 14:42)	
Versioned Document	No	
Direct link	http://openehr.org/knowledge/document?cid=1013.17.54	

Adverse Reactions Mindmap - Scotland (?needs update to final version) (mmap)

Description	Mindmap supporting the "Adverse Reactions Data Standards - Scotland" document (also within this Document Center)	 
	Format is Mindjet MindManager. Free viewer is downloadable from http://www.mindjet.com/resources/downloads/mm_viewer.aspx	
Source	National Clinical Datasets Development Programme (NCDDP), Information Services Division, NHS Scotland	
Type	Reference Document	
Upload	heather.leslie (16-Jul-2009 14:42)	
Size	48 KB	
Versioned Document	No	
Direct link	http://openehr.org/knowledge/document?cid=1013.17.53	

Adverse Reactions Data Standards - Scotland (doc)

Description	Information on allergies and adverse reactions to medications is collected widely within General Practice computer systems. Some of this information is extracted and sent to the Emergency Care Record store which is viewable to Emergency Care clinicians. At present, however, there is no consistent way of collecting this information. In addition, there is a lack of completion of information on other agents causing adverse reactions. The purpose of this work is to develop adverse reactions-specific data standards which will enable clinical and certain non-clinical information to be recorded and shared in a nationally agreed and consistent way. The Adverse Reactions data standards will: - Support the care of patients through more accessible and timely collection of information - Encourage high standards of record keeping - Support the development of an electronic health record There is a potential impact on existing IT systems, as some re-design may be required to comply with the agreed data standards.	 
Source	National Clinical Datasets Development Programme (NCDDP), Information Services Division, NHS Scotland	

Adverse Reaction



Classification

Right-click on any classification to remove the resource from this class.

Or add or remove classifications for this resource by checking and unchecking the checkboxes below.

You can also select or unselect whole trees and subtrees by right-clicking on any node with children.




Any changes you make are saved immediately.

Current Classification	
Scheme	Class
[-] Scheme: EHR Class (1 Classification)	
EHR Class	Evaluation
[-] Scheme: Language (3 Classifications)	
Language	Arabic (Syria)
Language	German
Language	English
[-] Scheme: Recording Data (1 Classification)	
Recording Data	History
[-] Scheme: Type Of Data (1 Classification)	
Type Of Data	Persistent Summary

Adverse Reaction



Validation Report

 WRANF	openEHR-EHR-CLUSTER.amount.v1 is referenced in the archetype, but could not be found in CKM	An archetype referenced in a archetype should be part of the CKM archetype suite.
 WRANF	openEHR-EHR-CLUSTER.medication_admin.v1 is referenced in the archetype, but could not be found in CKM	An archetype referenced in a archetype should be part of the CKM archetype suite.
 WRANF	openEHR-EHR-CLUSTER.timing.v1 is referenced in the archetype, but could not be found in CKM	An archetype referenced in a archetype should be part of the CKM archetype suite.

Show content style validation

Restrict to original language

Revalidate

Version validity report

/protocol[at0042]/items[at0045] (/Tree/Adverse Reaction Report/)	cluster added Optional item (min. occurrence = 0) added	Compatible with revision	ELEMENT (Adverse Reaction Report)
/protocol[at0042]/items[at0045]/value (/Tree/Adverse Reaction Report/)	Mandatory item (min. occurrence > 0) but inside new optional cluster added	Compatible with revision	DV_URI
/protocol[at0042]/items[at0047] (/Tree/Supporting Clinical Record Information/)	Optional item (min. occurrence = 0) added	Compatible with revision	ELEMENT (Supporting Clinical Record Information)
/protocol[at0042]/items[at0047]/value (/Tree/Supporting Clinical Record Information/)	Mandatory item (min. occurrence > 0) but inside new optional cluster added	Compatible with revision	DV_EHR_URI
/protocol[at0042]/items[at0044] (/UNKNOWN[at0042]/UNKNOWN[at0044]/)	Choice item within an existing choice constraint deleted	Requires new version	ELEMENT
/data[at0002] (structure/)	Item deleted	Requires new version	ITEM_TREE (structure)
/data[at0002]/items[at0003] (structure/Agent/)	Item deleted	Requires new version	ELEMENT (Agent)
/data[at0002]/items[at0003]/value (structure/Agent/)	Item deleted	Requires new version	DV_TEXT
/data[at0002]/items[at0010] (structure/Agent category/)	Item deleted	Requires new version	ELEMENT (Agent category)
/data[at0002]/items[at0010]/value (structure/Agent category/)	Item deleted	Requires new version	DV_CODED_TEXT

Group Asset Management

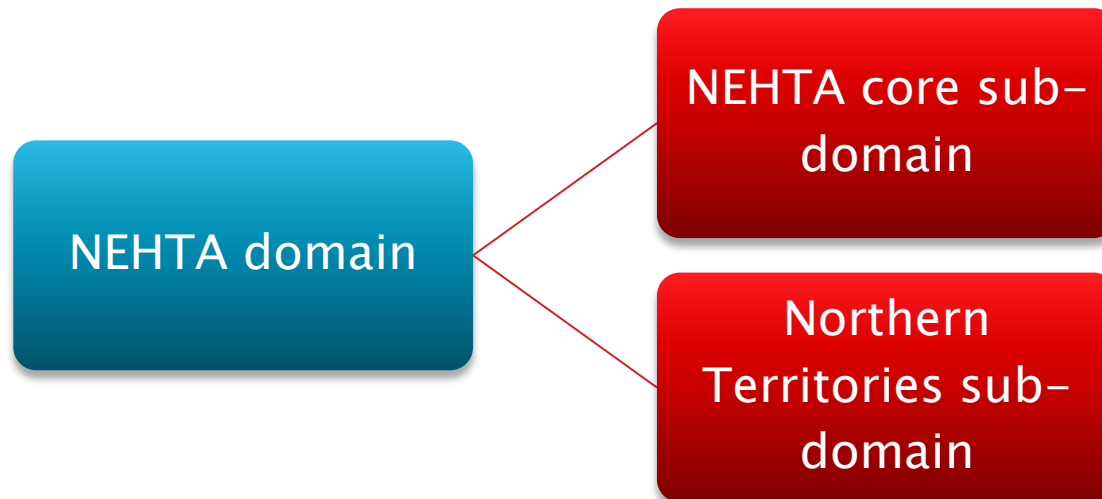
- Domains
- Sub-Domains
- Projects
 - Asset ownership
 - Teams
- Release Sets for a specific purpose – a combination of:
 - Primary assets – management of versions & publication lifecycle status
 - Secondary Assets
 - Related Assets

Domains

- ▶ Represent organisations with high-level governance over a set of artefacts
 - E.g openEHR, NEHTA, Slovenia MoH, Microsoft, Ocean Informatics, Cambio
- ▶ Usually equates to one physical repository
- ▶ But a physical repository may be shared by several domains
- ▶ Each domain will have a human name and a unique ‘namespace’, similar to SNOMED
- ▶ “openEHR Foundation, org.openehr”

Sub-domains

- ▶ Simple foldering structure within a domain
 - Help organise large domains but have no governance or semantic meaning
 - No meaning in broader openEHR governance eco-system



Projects

- ▶ Assets must be governed independently
 - But experience showed that for clinical review purposes it is helpful to group related archetypes, templates, termsets and associated documentation.
 - A one-stop shop for clinical reviewers
 - All assets must now be owned by a project
- ▶ Projects
 - Have an editor, a team of reviewers
 - Can 'own' i.e. control assets and modify them
 - Can 'reference' assets owned by a different project
 - Must request changes from 'owning' project

Cross– project communications

- ▶ Critical new feature in CKM
 - Starts to unlock the tricky issues of distributed governance and inevitable dependencies between templates, archetypes specialised archetypes and templates
- ▶ Is probably also key to the most complex aspect of cross–repository governance / communication “Federation”

Incubators

- ▶ Clear need for assets to be tightly governed
 - But, equal need for more informal, lightly governed collaborative development, particularly in early stages of archetype/ template development
- ▶ Incubators
 - Projects–lite
- ▶ May own ungoverned assets
 - Not publishable or reviewable
- ▶ May reference governed assets
- ▶ Very light–touch governance

★ Preferred View +
 🌈 All Resources +
 P Projects -
 My projects only

- ▲ 📁 Initial subdomain
 - P AEG
 - P Adverse Reaction team
 - P Blood Pressure Review
 - P Danish Review Team
 - P Demographics team
 - P GCS team
 - P Heather's Project
 - P Koray Team
 - P Pathology Synoptic reporting
 - P ShF
 - P Stepchildren
 - P Testing
 - P Testing creating a project
 - P UK Medications project
 - P Vital signs
 - P Weight team
- ▲ 📁 NEHTA Core
 - P Stephen's project
- ▲ 📁 Subdomain Nr. 2
 - P Michael's Test Project
 - P NHS England Test

I Incubators +
 📅 New and modified Resources +
 ❤️ Resource watchlist +
 🏠 Checked-out Resources +

★ Preferred View +
 🌈 All Resources +
 P Projects +
 I Incubators -
 My incubators only

- ▶ 📁 Initial subdomain
 - ▲ 📁 Subdomain Nr. 2
 - I Ian's incubator
 - I Public Incubator #2
 - I test inc

📅 New and modified Resources +
 ❤️ Resource watchlist +
 🏠 Checked-out Resources +

User Management

- Administrators
- Roles
 - Administrators
 - Editors
 - Reviewers
 - Translators
 - Users
- Teams

Verification vs Validation

Expert Verification

- ▶ Individual model review
 - Iterative refinement → consensus
 - Input from range of expertise
 - Outcome = “fit for purpose”
- ▶ Multiple model review
 - Projects

Technical Validation

- ▶ Per model
 - Ensure models are technically aligned with reference model
 - Versioning validation
 - Stylistic checking ☹️
- ▶ Cross-model
 - Dependency resolution checking
 - Assets present
 - Correct versions available

Web 2.0 – what is it?

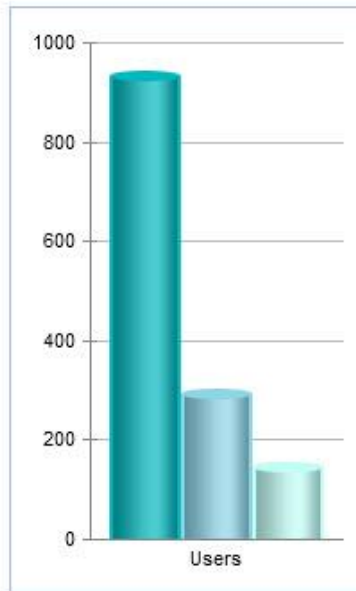
- ▶ principles of web 2.0 collaboration
 - transparency and accountability of all activity
 - Facilitating expert reviews, achieving consensus
 - development of quality measures in a crowd sourced environment




Web 2.0 Approach – Community

- ▶ Open participation
 - Domain experts
 - Profession
 - Clinicians
 - Engineers
 - Informaticians
 - Terminologists
 - Administrators
 - Consumers
 - Geographical/Cultural
 - Clinical Domain
 - General
 - All specialisations

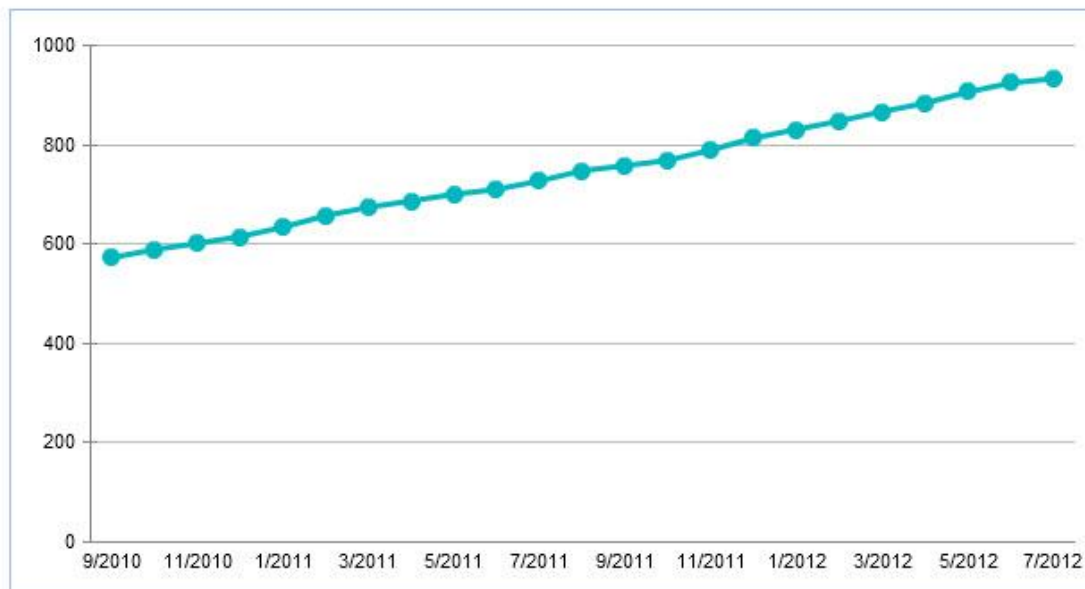
User Statistics

Total registered users



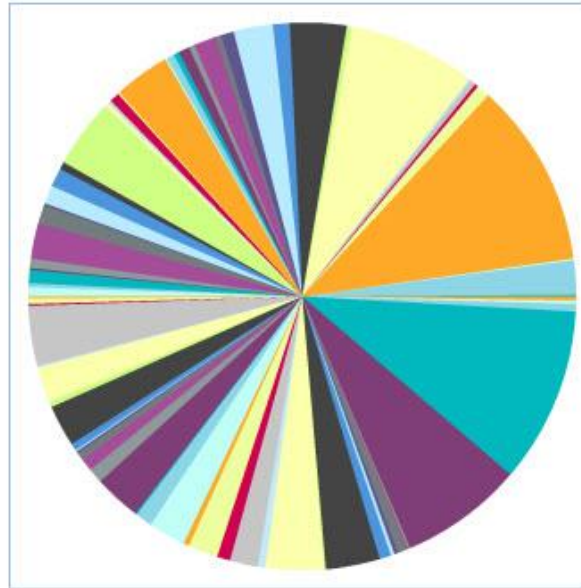
Type	Count	Legend
Total registered users	942	
Total registered reviewers	302	
Total registered translators	156	

Cumulative New Users per Month



Users per Country

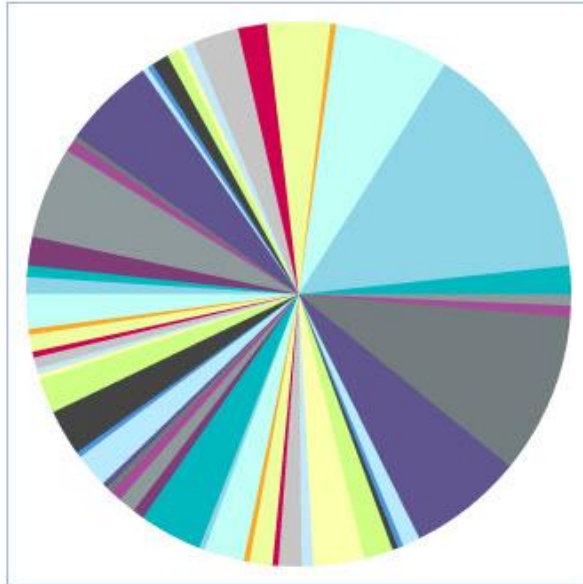
Total number of countries: 76



Country	Count
Australia	99
United States	94
Brazil	68
United Kingdom	66
India	37
Netherlands	32
Spain	31
Canada	30
Germany	30
Sweden	29
Portugal	25
Norway	22
China	21
Russian Federation	20
Japan	19
New Zealand	19
Argentina	18
Singapore	16
Slovenia	15
Denmark	12
Iran, Islamic Republic of	10
Ireland	10
Italy	10
Chile	9
Romania	9
Poland	8
Austria	7
Colombia	7
Korea (South), Republi...	7
Philippines	7
Slovakia	7

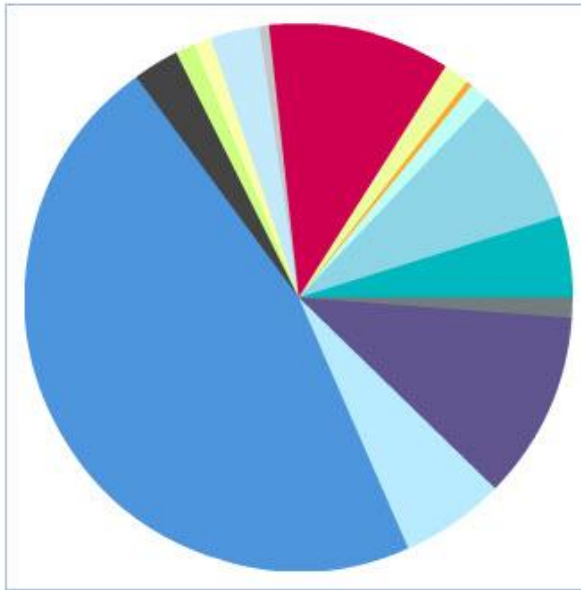
Reviewers per Country

Total number of countries: 53



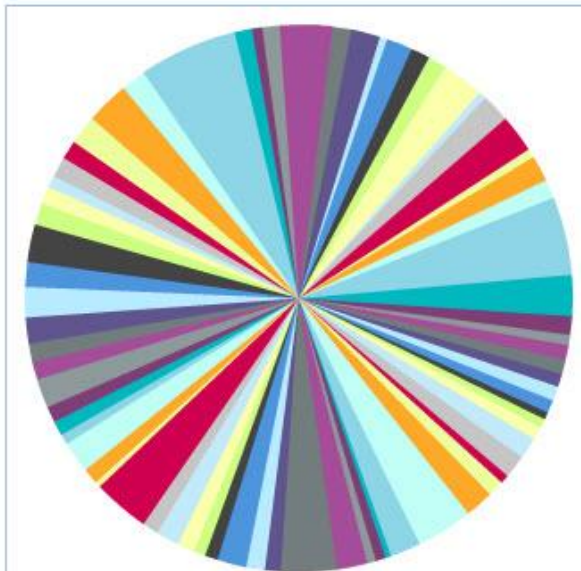
Country	Count
 Australia	42
 United States	28
 Brazil	20
 United Kingdom	20
 Germany	16
 India	16
 Canada	11
 Portugal	11
 Spain	9
 China	8
 New Zealand	8
 Russian Federation	7
 Japan	6
 Netherlands	6
 Norway	6
 Argentina	5
 Chile	5
 Iran, Islamic Republic of	5
 Sweden	5
 Singapore	4
 Slovenia	4
 Egypt	3
 Italy	3
 Korea (South), Republic of	3
 Philippines	3
 Turkey	3
 Colombia	2
 Ecuador	2
 Greece	2
 Ireland	2
 Malaysia	2

Users per Profession (Multiple choice)



Name	Count
Health Informatics/Health IT	549
Student	131
Clinicians:Medical Practitioner	127
Clinicians	96
Other	73
Administrator	57
Clinicians:Nurse	34
Consumer	32
Clinicians:Laboratory Scientist	18
Clinicians:Allied Health Professional	14
Clinicians:Pharmacist	14
Terminologist	14
Clinicians:Paramedical Professional	12
Clinicians:Midwife	7
Clinicians:Allied Health Professional:Audiologist	4

Users per Health Domain (Multiple choice)



Name	Count
General Practice	68
Administration	54
Oncology	39
Public Health	39
Pathology	38
Emergency/Ambulance	36
General/Internal Medicine	30
Cardiology	29
Ambulatory Care	26
Intensive/Critical Care	26
Obstetrics/Maternity	22
Medical Administrator	21
Pharmacy	21

Web 2.0 Approach – how

Web 2.0

- ▶ Distributed/international
- ▶ Online, time of choice
- ▶ Low opportunity cost
- ▶ Asynchronous
- ▶ Crowd-sourcing
- ▶ Self-identified community
- ▶ Broad scope
- ▶ Transparent
 - Community accountable

Traditional meetings

- ▶ Local/Regional/National
- ▶ Face to Face, scheduled
- ▶ Higher opportunity cost
- ▶ Simultaneous
- ▶ Invitation only
- ▶ Accredited individuals
- ▶ Narrow scope
- ▶ Variable
 - ‘Expert’ opinion-based

Dear Heather Leslie,

You are invited to participate in the review of the clinical content of the Archetype Fetal Heart Rate (openEHR-EHR-OBSERVATION.fetal_heart.v1).

Your options:

- Accept and [REVIEW ARCHETYPE NOW](#) - log in to CKM and the review will be immediately displayed, OR
- Accept and [REVIEW ARCHETYPE LATER](#) - we will send you a reminder prior to the review round closing, OR
- [DECLINE](#) invitation.

This review round will be closed and results collated on 01 February 2012. You will be notified of the feedback by the editor.

Kind Regards

Heather Leslie, Jo Wright, Sam Heard (editors)

If you wish to unsubscribe from this service, please follow this link:

<http://dcm.nehta.org.au/ckm/#unregister>

Multilingual

- ▶ Models may be authored in any primary languages
 - Not necessarily English
- ▶ Translations are completed online or uploaded to branches
- ▶ Currently 15 languages
- ▶ Some models are starting to be authored in another language and translated to English
- ▶ Translation Reviews required to verify the model translation

Archetypes per Language

English [en] (286 archetypes)

Arabic (Syria) [ar-sy] (45 archetypes)

German [de] (44 archetypes)

Portuguese (Brazil) [pt-br] (41 archetypes)

Spanish (Argentina) [es-ar] (14 archetypes)

Russian [ru] (12 archetypes)

Farsi [fa] (8 archetypes)

Details	Apgar score (openEHR-EHR-OBSERVATION.apgar.v1)
Details	Blood Pressure (openEHR-EHR-OBSERVATION.blood_pressure.v1)
Details	Body mass index (openEHR-EHR-OBSERVATION.body_mass_index.v1)
Details	Body temperature (openEHR-EHR-OBSERVATION.body_temperature.v1)
Details	Body weight (openEHR-EHR-OBSERVATION.body_weight.v1)
Details	Clinical Synopsis (openEHR-EHR-EVALUATION.clinical_synopsis.v1)
Details	Height/Length (openEHR-EHR-OBSERVATION.height.v1)
Details	Respirations (openEHR-EHR-OBSERVATION.respiration.v1)

Dutch [nl] (7 archetypes)

Spanish (Chile) [es-cl] (4 archetypes)

English (Great Britain) [en-gb] (2 archetypes)

Spanish (Spain) [es] (2 archetypes)

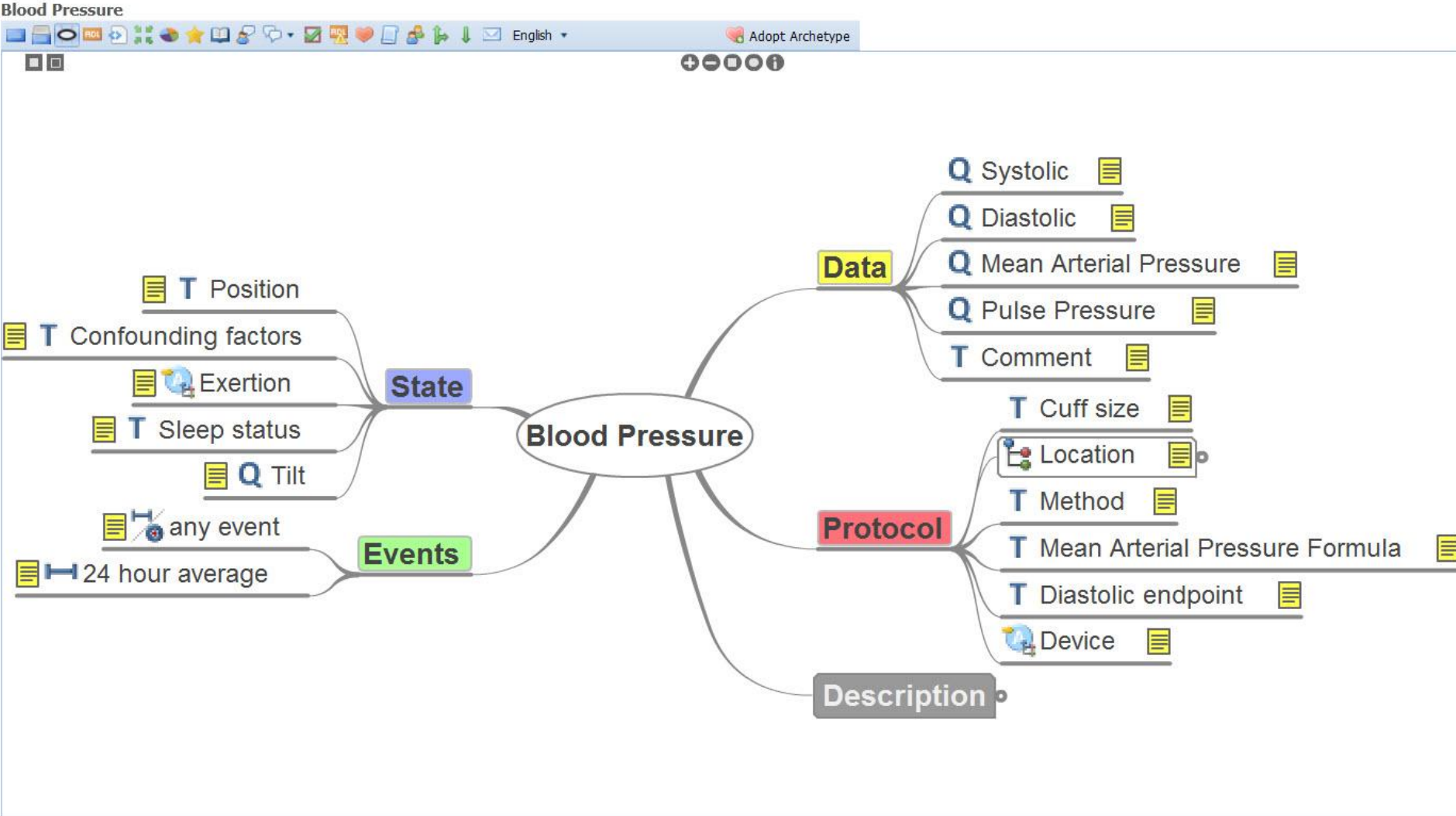
Basque [eu] (1 archetype)

Japanese [ja] (1 archetype)

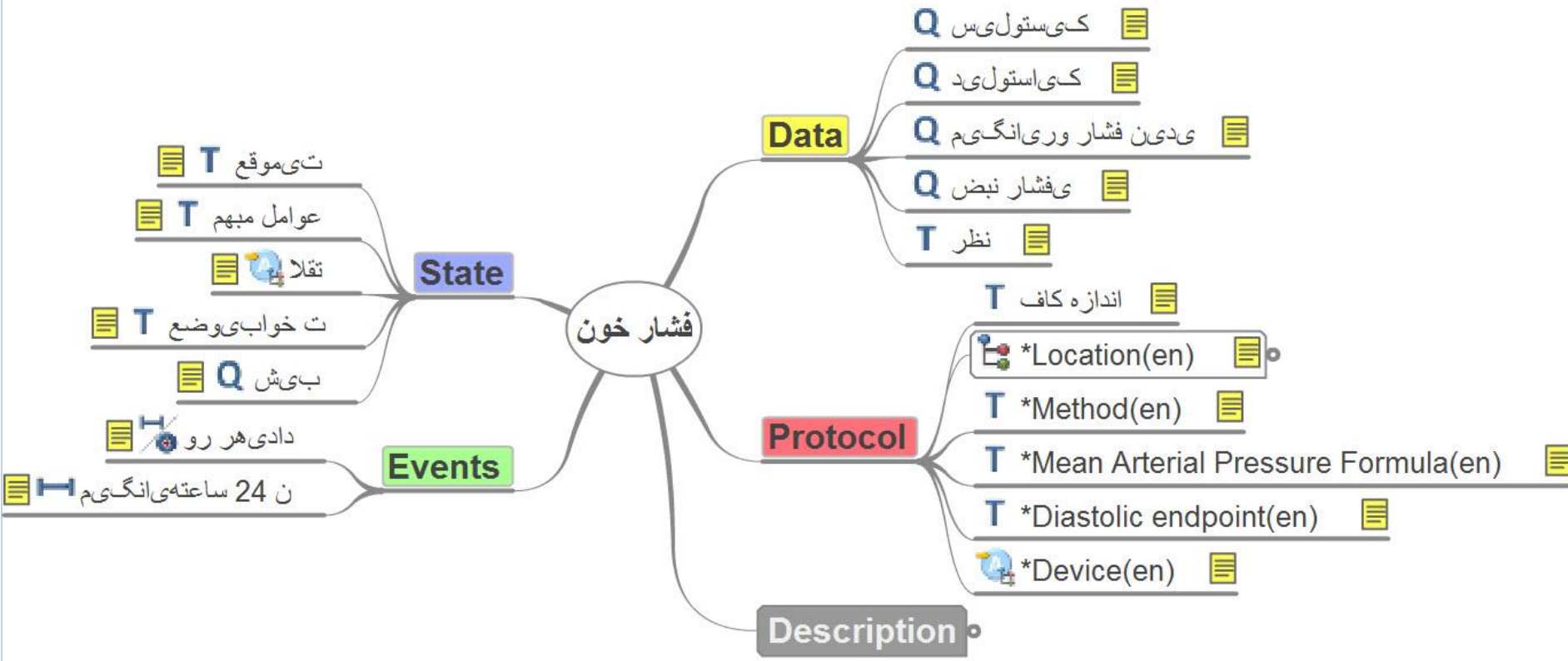
Norwegian Bokmål [nb] (1 archetype)

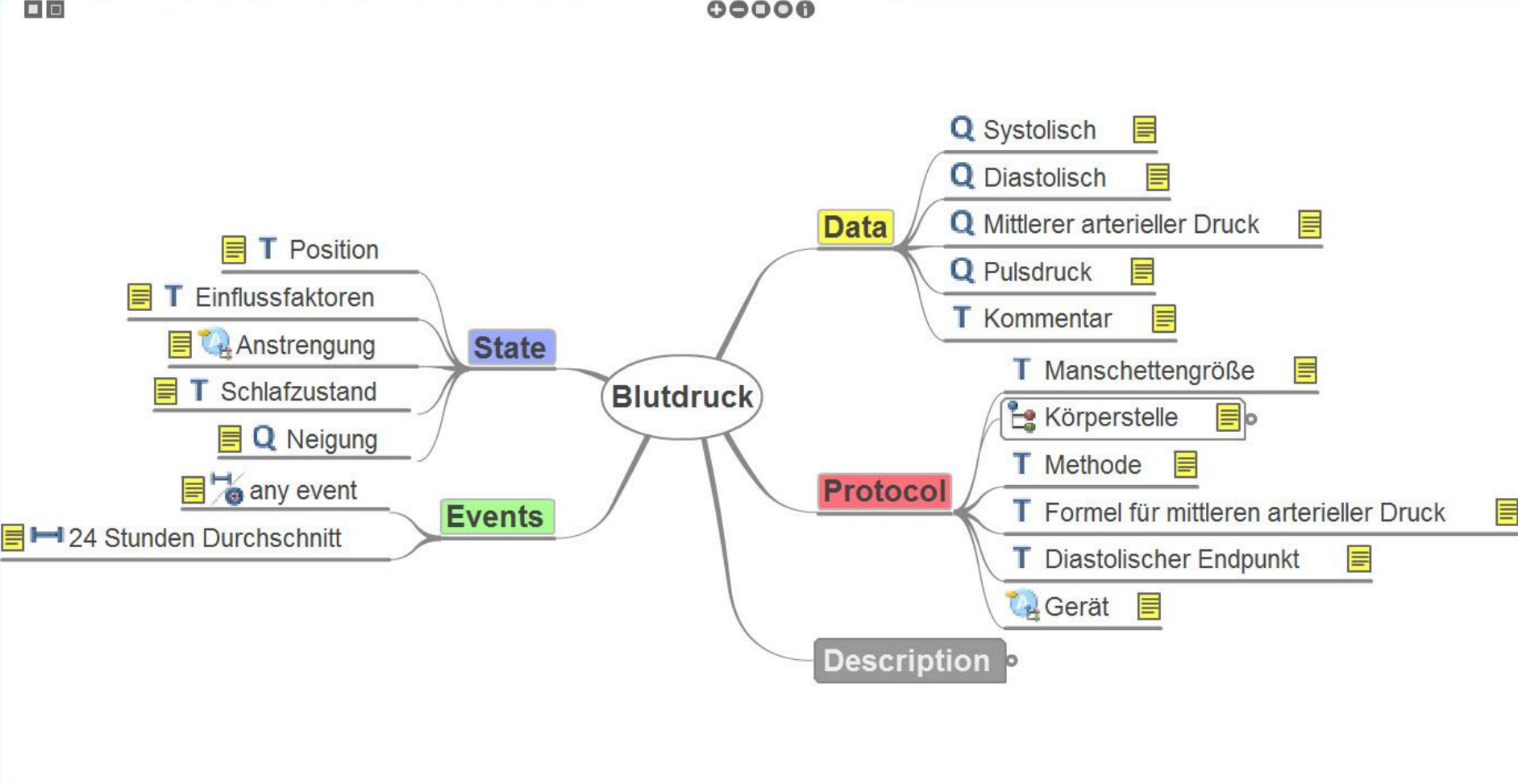
Details	Body temperature (openEHR-EHR-OBSERVATION.body_temperature.v1)
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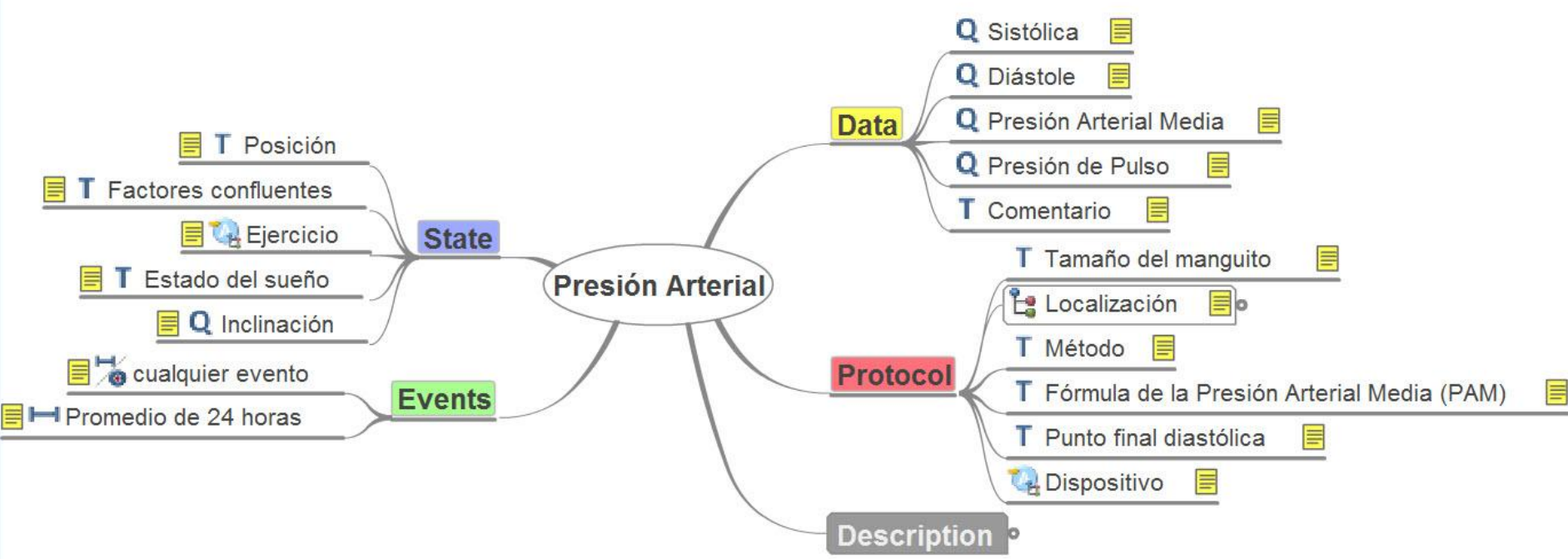
Chinese (PRC) [zh-cn] (1 archetype)

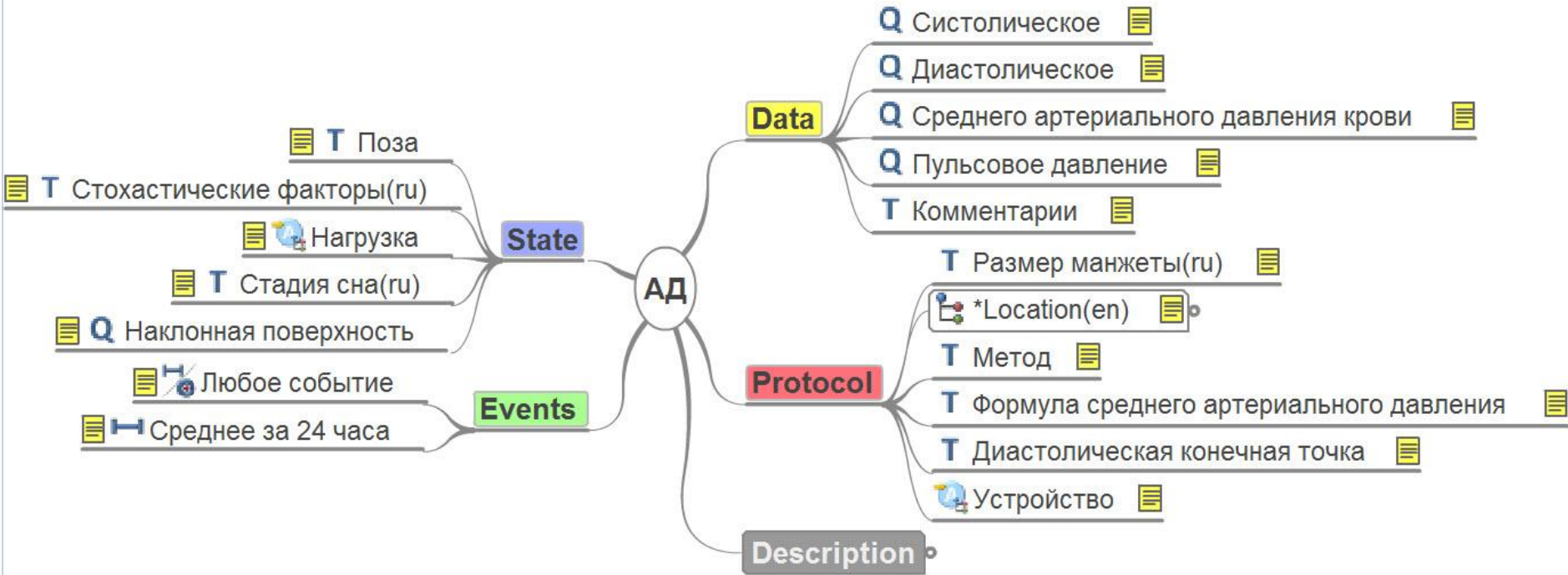


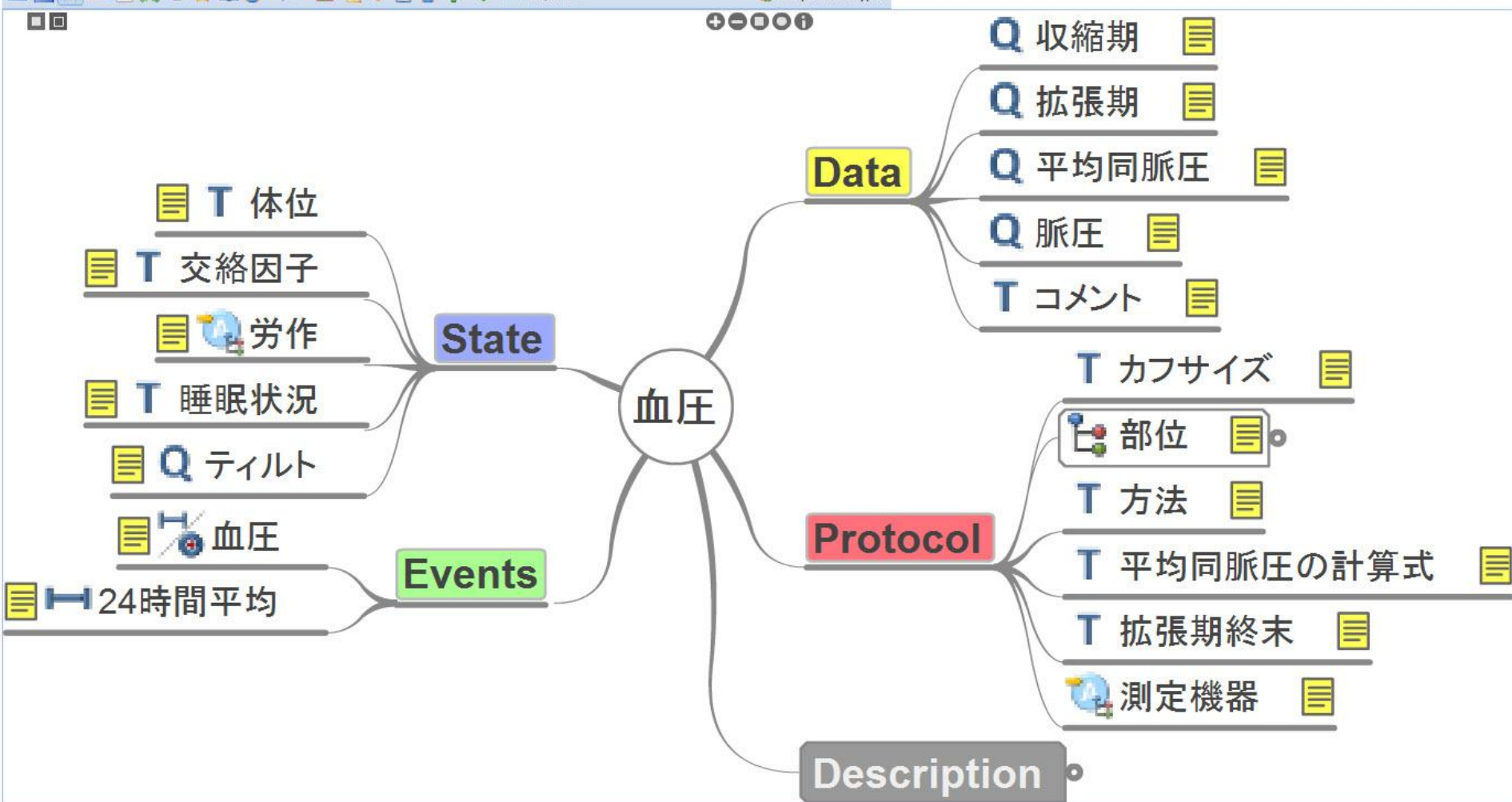
Mindmap Download (Freemind): http://www.openehr.org/knowledge/OKM/getmindmap?archetype-cid=1013.1.130_locale_en_language_en











Distribution/Implementation

- ▶ Combinations of primary assets
 - Base models – archetypes/templates/ref sets
- ▶ Associated secondary assets
 - Transforms
- ▶ Associated related assets
 - Documentation/implementation guides

Maintenance

- ▶ Gatekeeper role re models uploaded
 - Scope
 - Granularity
 - Quality
- ▶ Tracking activity
 - Discussion
 - Formal processes
 - Reviews
 - Volunteer activity
 - Managed in Branches
 - Content Editing
 - Terminology Binding
 - Translations

Editor's watches/adoptions summary

Res	Resource	Adopted	Notifications
Adverse Reaction	37	51	
Blood Pressure	28	67	
Address	17	29	
Problem	16	116	
Body temperature	16	17	
Body weight	16	36	
Height/Length	16	36	
Person name	15	24	
Medication description	14	18	
Diagnosis	10	11	

Editor's active review rounds

Ty...	Reso...	No.	T...	Initiated	Compl. De...	T...	A...	C...
Co	Adver...	2	A...	16-Jan-2012	16-Mar-2012	53	17	8
Co	Glas...	2	O...	04-Oct-2010	18-Oct-2010	40	19	16
Co	ECG ...	1	O...	22-Feb-20...	14-Mar-2010	51	9	9
Co	Heart...	2	O...	13-Oct-2009	27-Oct-2009	41	13	13
Co	Probl...	1	O...	07-Oct-2009	22-Oct-2009	111	38	18

Active team invitations and requests

Type	Team	Role	Status
No invitations/requests			

Editor's active tasks

Res	Resource	Task
Alcohol Consumption	Types of alcohol are not the same as for...	
Alcohol Consumption	Translation (ar-sy) needs to be checked...	
Alcohol Use Summary	Types of alcohol are not the same as for...	
Antinuclear antibody (...)	Translation (ar-sy) needs to be checked...	
Apgar score	should be: ["/data[at0002]/events[at002...	
Apgar score	Translation (ru) needs to be checked an...	
Blood gas assessment	Translation (ar-sy) needs to be checked...	
Blood glucose	Translation (ar-sy) needs to be checked...	
Blood matching	Translation (ar-sy) needs to be checked...	
Blood Pressure	Removed Postural change due to issue...	

Resource watchlist

Res	Resource	Adopted	Notifications
ECG recording	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Microscopic findings - Prostate can...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Medication order	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Laboratory test	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Body temperature	<input type="checkbox"/>	<input type="checkbox"/>	
Blood Pressure	<input type="checkbox"/>	<input type="checkbox"/>	
Medication action	<input type="checkbox"/>	<input type="checkbox"/>	
Respirations	<input type="checkbox"/>	<input type="checkbox"/>	
Histology result haematopoietic tu...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Microscopic findings - Melanoma of...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Discussions

Res	Resource	Subject	Details	User...	Created...
General D...	Constrai...	Give LinKEH...	Diego...	22-Aug...	
Referral r...	Wouldn't be ...	INSTRUCTI...	Sam ...	22-Aug...	
Medicatio...	Missing slot...	Hi Pablo, Th...	Ian M...	09-Aug...	
Medicatio...	Node ids on...	Great, thank...	Pablo...	07-Aug...	
Diagnosis	Invalid codes?	Hi Sebastia...	Pablo...	28-Jul...	
Diagnosis	Problem dia...	Hi, I agree c...	Pablo...	27-Jul...	
General D...	Constraints ...	Hi Leysan, ...	Ian M...	19-Jul...	
General D...	Error	Thank you. I'...	Leysa...	11-Jul-2...	

Completed reviews

Ty...	Resource	No.	Recommend...	Cpl. Date...	Action
Nine Hole Pen Test	1	Minor Revision	11-Jul-2012		

Active reviews

Ty...	Resource	Compl. Deadline	Action
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Heart Rate

To-Do-List

Add new task


→	needs contributors updated	<i>Last modified by heather.leslie (13-Oct-2009 23:46).</i>
→	Further research required for Sam Heard's review suggestion: "I would add a boolean - Irregular heart beat detected - as this is part of the device output for a lot of BP machines"	<i>Last modified by heather.leslie (19-Jul-2012 13:54).</i>
→	Heart rate present?: Ian McNicoll asked whether the 'true' should be removed as an option. Perhaps ask as a special question in the next review round?	<i>Last modified by heather.leslie (19-Jul-2012 13:57).</i>
→	Rhythm pattern (renamed to Regularity): The outstanding question is still the value set. Does a simple 'irregular' value have a place here to allow the choice of regular vs irregular and then if irregular, regularly irregular vs irregularly irregular! To ask in the next review round.	<i>Last modified by heather.leslie (19-Jul-2012 14:00).</i>
→	Regularity: Ian McNicoll suggested 'has dropped beats'. Dropped beats - is not an expression of 'Regularity'. Is it an additional boolean? And if so, then do we need indications of frequency of dropping, regularity of dropping etc. To ask in next review round.	<i>Last modified by heather.leslie (19-Jul-2012 14:01).</i>
→	Position: Question for next review round: Is Lying with tilt to left important for heart rate as well as blood pressure??	<i>Last modified by heather.leslie (19-Jul-2012 14:06).</i>

Active Branches

 Archetypes (150)  Templates (1)  Termsets (0)


Triage evaluation (openEHR-EHR-EVALUATION.triage.v1)

Branch: mona.saleh (Rev. 1.2)
Log message: Translated archetype from English to Arabic (Syria).
Branched from trunk revision: 1 (Latest revision)

 Archetype History


Triage evaluation (openEHR-EHR-EVALUATION.triage.v1)

Branch: leo.derja (Rev. 1.3)
Log message: Translated archetype from English to Spanish (Argentina).
Branched from trunk revision: 1 (Latest revision)

 Archetype History


Pregnancy test (openEHR-EHR-OBSERVATION.pregnancy_test.v1)

Branch: mona.saleh (Rev. 1.2)
Log message: Translated archetype from English to Arabic (Syria).
Branched from trunk revision: 1 (Latest revision)

 Archetype History


Pregnancy test (openEHR-EHR-OBSERVATION.pregnancy_test.v1)

Branch: leo.derja (Rev. 1.2)
Log message: Translated archetype from English to Spanish (Argentina).
Branched from trunk revision: 1 (Latest revision)

 Archetype History


Laboratory Test request (openEHR-EHR-INSTRUCTION.request-lab_test.v1)

Branch: mona.saleh (Rev. 2.2)
Log message: Translated archetype from English to Arabic (Syria).
Branched from trunk revision: 2 (Latest revision)

 Archetype History

Fundoscopic examination of eyes (openEHR-EHR-OBSERVATION.fundoscopic_examination.v1)

Branch: mona.saleh (Rev. 3.3)
Log message: Translated archetype from English to Arabic (Syria).
Branched from trunk revision: 3 (Latest revision)

 Archetype History

Carer observation (openEHR-EHR-OBSERVATION.third_party_observation.v1)

Branch: mona.saleh (Rev. 2.2)

Archetypes

All Archetypes +

New and modified Archetypes -

Since: 25-Jul-2012

EHR Archetypes

- Cluster
 - Symptom (v1)
- Composition
 - Medication list (v1)
- Entry
 - Action
 - Follow up action (v1)
 - Imaging investigation (v1)
 - Intravenous fluid administration
 - Medication action (v1)
 - Procedure undertaken (v1)
 - Transfusion (v1)
 - Evaluation
 - Pregnancy summary (v1)
 - Substance Use Summary (v1)
 - Observation
 - Apgar score (v1)
 - Barthel Index (v1)
 - Heart Rate (v1)
 - Pulse (v1)

Checked-out Archetypes +

Archetype watchlist +

Archetypes

All Archetypes +

New and modified Archetypes +

Checked-out Archetypes -

EHR Archetypes

- Cluster
 - Examination of the cervix (v1)
- Entry
 - Observation
 - Blood glucose (v1)
 - ECG recording (v1)
 - Section
 - Problem List (v1)

Archetype watchlist +

Archetypes

All Archetypes +

New and modified Archetypes +

Checked-out Archetypes +

Archetype watchlist -

EHR Archetypes

- Cluster
 - Macroscopic findings - Colorectal c
 - Microscopic findings - Breast cance
 - Microscopic findings - Colorectal ca
 - Microscopic findings - Lung cancer
 - Microscopic findings - Lymphoma (
 - Microscopic findings - Melanoma o
 - Microscopic findings - Prostate can
 - TNM staging - Lung cancer (Sixth E
- Entry
 - Action
 - Medication action (v1)
 - Evaluation
 - Problem (v1)
 - Observation
 - Autopsy examination (v1)
 - Blood Pressure (v1)
 - Body temperature (v1)
 - ECG recording (v1)
 - Histology result haematopoietic
 - Indirect oximetry (v1)
 - Laboratory test (v1)
 - Nine Hole Peg Test (v1)
 - Respirations (v1)
 - Timed 25-Foot Walk (v1)
 - Instruction
 - Medication order (v1)
- Demographic Model Archetypes
 - Address
 - Address (v1)
 - Party Identity
 - Person name (v1)

★ Preferred View +

All Resources -

Subdomain: All subdomains ▾

Project or Incubator: All projects ▾

All active Under review Published

Find Resources | Dashboard | Introduction to CKM x

+ -

Archetypes

- ▶ EHR Archetypes
 - ▶ Cluster
 - ▶ Composition
 - ▶ Element
 - ▶ Entry
 - ▶ Action
 - ▶ Evaluation
 - ▶ Observation
 - ▶ Instruction
 - ▶ Admin
 - ▶ Section
 - ▶ Structure
- ▶ Demographic Model Archetypes

- Projects +
- Incubators +
- New and modified Resources +
- Resource watchlist +
- Checked-out Resources +

← **Resource** | Lifecycle | Project | Domain & Profession | EHR Class | Purpose | Subject | Location | Country & Language →

Search for:

Restrict search to main data

Complete search

Search for...

Archetypes Templates Termsets

Search using...

Or

And

Subclasses...

Restrict search to directly selected classes

Include subclasses in search

Find Resources


Purpose

To record information about any harmful, desirable or unexpected reaction to a substance or agent, including:


- immune mediated reactions Types I-IV (including true allergic reactions and hypersensitivities), and
- non-immune mediated reactions (including pseudoallergic reactions, side effects, intolerances, drug toxicities (eg Gentamicin), drug-drug interactions, food-drug interactions, drug-disease interactions and idiosyncratic reactions).

To record information about previous exposures to a substance, allowing a persisting and evolving summary of adverse reaction events to build up over time.

To record additional information that will support and inform a clinical assessment of the propensity of an individual to experience an adverse reaction if exposed to a specific substance, class of substance or agent in the future.


Rikard Lovstrom (24-Jan-2012) 

Often hard to tell which at the moment of recording this.

Shahla Foozonkhah (28-Jan-2012) 

1. In the first sentence "..., desirable or..." it is more like a definition of the side effect (side effects are predicted and can be desirable or undesirable even on a correct dosage.).

2. eg -> e.g.

Stephen Chu (13-Mar-2012) 

This archetype contains data elements for asserting "absolute contraindication" and "future use" recommendation.

As such, it is more than just recording exposure, resulting reaction and inform clinical assessment of propensity.


There should be an additional statement such as:

"To communicate clinical opinion about absolute contraindication and recommendation or caution on future use of the substance/agent in question"

Editor Feedback:

Use

Use to record all information about the presence of adverse reaction/s (including an allergic reaction/s) to a substance to support direct clinical care of an individual; as part of a managed Adverse Reaction list; to enable safe exchange of information about adverse reactions; and to assist computerised knowledge-based activities such as clinical decision support and alerts.

Rikard Lovstrom (24-Jan-2012) 

Historical reactions, not predicted.

Adverse Reaction

Double-click on a review to display it.

Completed reviews

Username	Recommendation	Cpl. Date
Review round: 2, initiated: 16-Jan-2012 (8 Reviews)		
heather.grain	Major Revision	17-Jan-2012
sam.heard	Accept	19-Jan-2012
rikard.lovstrom	Minor Revision	24-Jan-2012
shahla.foozonkhah	Minor Revision	28-Jan-2012
sebastian.garde	Minor Revision	08-Feb-2012
rong.chen	Minor Revision	09-Feb-2012
jerry.fahrni	Minor Revision	04-Mar-2012
stephen.chu	Major Revision	13-Mar-2012
Review round: 1, initiated: 03-Jul-2009 (18 Reviews)		
sebastian.garde	Abstain	03-Jul-2009
rikard.lovstrom	Major Revision	03-Jul-2009
grahame.grieve	Minor Revision	07-Jul-2009
peter.scott	Minor Revision	08-Jul-2009
stephen.chu	Minor Revision	13-Jul-2009

Review Rounds Summary

Open review summary of selected reviews of this resource

Review round:

Round 2 - completed on 16-Mar-2012

Open review summary

Pauline Sweetman  **Allergy, allergens, categories and recording**

(17-Jul-2009 22:18)

1 reply



Apologies that I am late to the party. I've finally popped my head over the wall and found you all again, and just in time since I see the closing date is set at tomorrow.



I did a lot of work on this on the London Programme for IT. We held workshops and met with allergy experts. I shall look out the work this afternoon.

Some of things from memory were

1. Different clinicians wish to record allergy and adverse reaction for different purposes, and it is difficult to cater for them all in one hit.
2. Many reactions that people wish to record are not allergies, nor unexpected. Examples of this might be stomach upset with certain antibiotics, or a certain depression on a Monday!
3. The whole purpose for recording any of these things is to avoid harm to a patient by giving the wrong thing, enable appropriate treatment to be given or explain why a patient is in the state that he is (e.g. collapse, rash etc).
4. Expecting the person to record the category of the allergen is probably expecting too much. Some food allergies are simple, many substance allergies are not. Many food substances occur in medicines (e.g. raspberry), some industrial chemicals also (e.g. coal tar), and exactly which part of a manufactured product or compound the person is allergic to is usually unknown (for example dressings)
5. Expression of allergy and intolerance by a patient may include things such as 'mother in law', 'Mondays', 'work' etc and although these may seem flippant there may be occasions when the patient is actually conveying useful information about their state of mind that should be recorded (though it may not always participate in decision support!).

The work is archived and I shall dig it out this afternoon/evening, then properly review the archetype in detail.

Essentially we decided that the most likely path to success was to go down the Snomed path, and allow the person recording the agent to search and select from defined Snomed subsets, allowing the 'back end' to run decision support against it, and also to determine the category based on where in the hierarchy or subsets the agent is found. Some software suppliers may successfully categorise these for display or reporting purposes but there will always be some overlaps such as I mentioned earlier. We also defined the source of the reaction coding (rash etc), severity (including mild, severe, life-threatening (which incidentally I successfully requested to be added to Snomed), and other elements needed for recording.

Thanks for reading thus far.

Stephen Chu 

(14-Jul-2009 09:18)

Does this archetype excludes the support for documenting "allergy history" such as hay fever?

1 reply



For "allergy history" such as hay fever, contact dermatitis, etc, there is need to support the documentation of diagnostic tests to confirm or exclude certain allergens as the cause. Is this archetype intended to support this use case?





Clinical Knowledge Manager

A Archetypes
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All Archetypes

Team: All teams

Filter input field with + and - icons

- EHR Archetypes
 - Cluster
 - Composition
 - Element
 - Entry
 - Action
 - Evaluation
 - Observation
 - Instruction
 - Admin
 - Section
 - Structure
 - Demographic Model Archetypes

- New and modified Archetypes
- Checked-out Archetypes
- Archetype watchlist

- Open Archetype...
- Find Archetype...
- Compare with local archetype...
- Compare two local archetypes...
- Adoptions/Watchlist...
- Mindmap Overview
- Bulk export...
- Import new archetype...
- Revise Archetype
- Translate archetype...
- Bulk import archetypes...
- Editor's watches/adoptions summary...

Class	Purpose	Subject	Location	Country & Language

Main data

Templates Termsets

- Subclasses...
- Restrict search to directly selected classes
 - Include subclasses in search

Find Resources



Clinical Knowledge Manager

All Archetypes

Team: All teams

Filter icons

- EHR Archetypes
 - Cluster
 - Composition
 - Element
 - Entry
 - Action
 - Evaluation
 - Observation
 - Instruction
 - Admin
 - Section
 - Structure
 - Demographic Model Archetypes

- New and modified Archetypes
- Checked-out Archetypes
- Archetype watchlist

Find Resource

- Open Template...
- Find Template...
- Adoptions/Watchlist...
- Mindmap Overview
- Bulk export...
- Import new template...
- Revise Template
- Editor's watches/adoptions summary...

Resource

Search for

Adv

Search for...

- Archetypes
- Templates
- Termsets

Search using...

- Or
- And

Subclasses...

- Restrict search to directly selected classes
- Include subclasses in search

Find Resources



Clinical Knowledge Manager

All Archetypes

Team: All teams

Filter icons

- EHR Archetypes
 - Cluster
 - Composition
 - Element
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 - Action
 - Evaluation
 - Observation
 - Instruction
 - Admin
 - Section
 - Structure
 - Demographic Model Archetypes

- New and modified Archetypes
- Checked-out Archetypes
- Archetype watchlist

- Open Termset...
- Find Termsets...
- Adoptions/Watchlist...
- Bulk export...
- Import new termset...
- Revise Termset
- Editor's watches/adoptions summary...

Resource Domain & P Location Country & Language

Search for: ⓘ

Advanced

Search for... Archetypes Templates Termsets

Search using...
 Or
 And

Subclasses...
 Restrict search to directly selected classes
 Include subclasses in search

Find Resources



Clinical Knowledge Manager

- View all Release Sets...
- Adoptions/Watchlist...
- Create Release Set...
- Revise Release Set...
- Editor's watches/adoptions summary...

All Archetypes

Team: All teams

Search filter with +/- icons

- EHR Archetypes
 - Cluster
 - Composition
 - Element
 - Entry
 - Action
 - Evaluation
 - Observation
 - Instruction
 - Admin
 - Section
 - Structure
 - Demographic Model Archetypes

- New and modified Archetypes
- Checked-out Archetypes
- Archetype watchlist

Resource Domain & Profession

Search for:

Restrict search Complete search

Advanced

Search for...

Archetypes Templates Termsets

Search using...

Or And

Subclasses...

Restrict search to directly selected classes Include subclasses in search

Find Resources



Clinical Knowledge Manager

- Completed reviews...
- Review Invitations...
- Initiate review round
- Review Rounds Summary

All Archetypes

Team: All teams

Search filter: + -

- EHR Archetypes
 - Cluster
 - Composition
 - Element
 - Entry
 - Action
 - Evaluation
 - Observation
 - Instruction
 - Admin
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 - Structure
 - Demographic Model Archetypes

- New and modified Archetypes +
- Checked-out Archetypes +
- Archetype watchlist +

Resource Domain & Profession EHR Class Pur Country & Language

Search for:

Restrict search to main data

Complete search

Advanced

Search for...

Archetypes Templates Termsets

Search using...

Or

And

Subclasses...

Restrict search to directly selected classes

Include subclasses in search

Find Resources



Welcome, Ian McNicoll. Sign out.

Find Resources

Dashboard

Resource

Domain & Profession

EHR Class

Purpose

Subject

Location

Country &

Search for:

Restrict search to main data

Complete search

Advanced

Search for...

Archetypes

Templates

Termsets

Search using...

Or

And

Subclasses...

Restrict search to directly selected classes

Include subclasses in search

- Team details...
- Invitations and requests...
- View resources per team and reassign...
- Assign Archetype to team...
- Assign Template to team...
- Assign Termset to team...
- Email teams, reviewers, users...
- Create team...
- Modify team...
- Delete team...

Find Resources



Clinical Knowledge Manager

A Archetypes
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S
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Find Resources
Dashboard

All Archetypes

Team: All teams

+
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- EHR Archetypes
 - ▶ Cluster
 - ▶ Composition
 - ▶ Element
 - Entry
 - ▶ Action
 - ▶ Evaluation
 - ▶ Observation
 - ▶ Instruction
 - ▶ Admin
 - ▶ Section
 - ▶ Structure
 - ▶ Demographic Model Archetypes

- New and modified Archetypes +
- Checked-out Archetypes +
- Archetype watchlist +

Resource
Domain & Profession
EHR Class
Purpose
Subject
Local

Search for:

Restrict search to main data
 Complete search

Advanced

Search for...

Archetypes
 Templates
 Termsets

Search using...

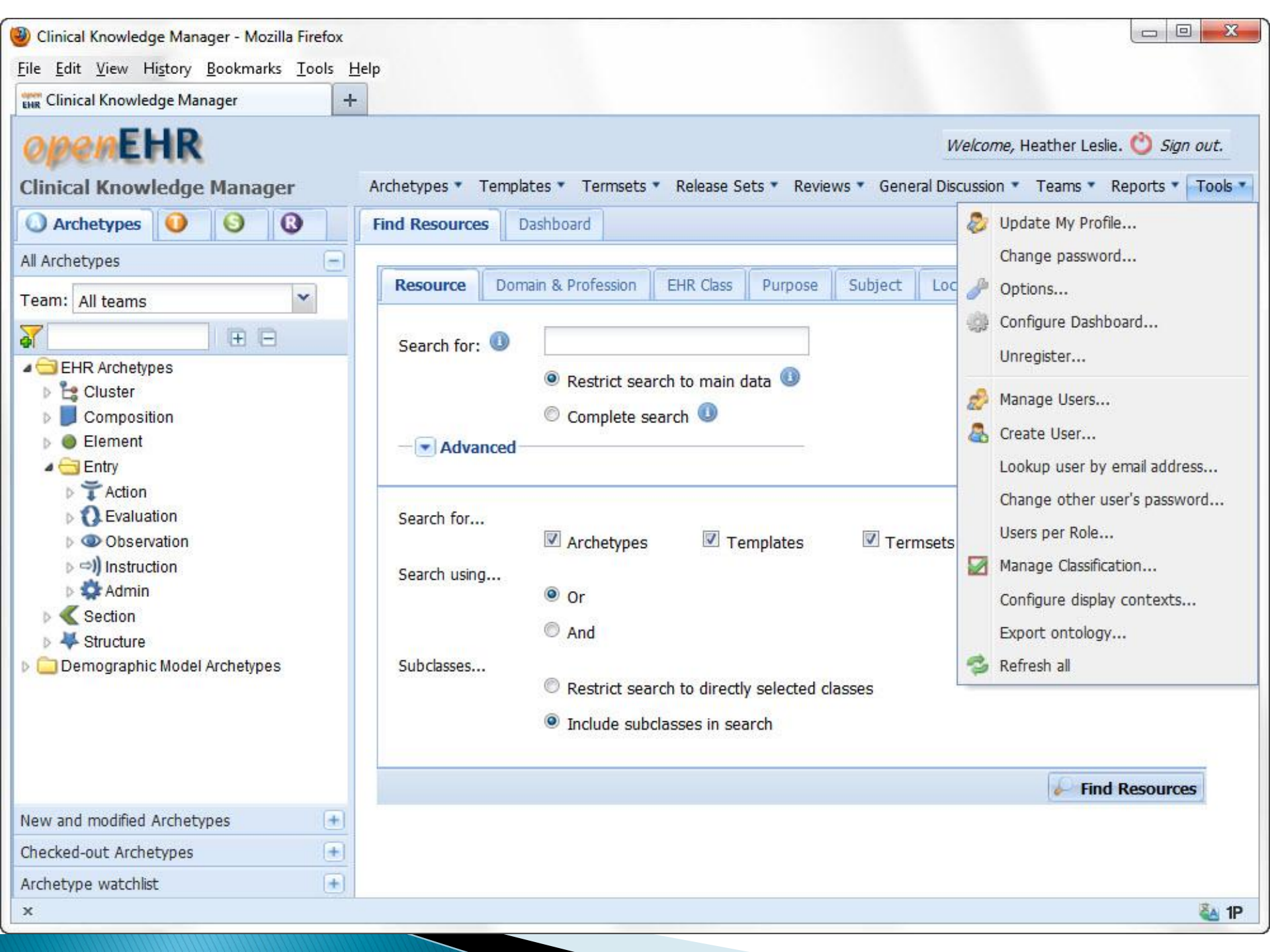
Or
 And

Subclasses...

Restrict search to directly selected classes
 Include subclasses in search

- Archetype Statistics...
- Template Statistics...
- Termset Statistics...
- User Statistics...
- Archetype Validation...
- Active Branches...
- Archetypes per Language...
- Review Reporting...
- Sign-in Statistics...

Find Resources



All Archetypes

Team: All teams

Filter

- EHR Archetypes
 - Cluster
 - Composition
 - Element
 - Entry
 - Action
 - Evaluation
 - Observation
 - Instruction
 - Admin
 - Section
 - Structure
- Demographic Model Archetypes

New and modified Archetypes +

Checked-out Archetypes +

Archetype watchlist +

Resource Domain & Profession EHR Class Purpose Subject Location

Search for: [input]

Restrict search to main data

Complete search

Advanced

Search for... Archetypes Templates Termsets

Search using... Or And

Subclasses... Restrict search to directly selected classes Include subclasses in search

- Update My Profile...
- Change password...
- Options...
- Configure Dashboard...
- Unregister...
- Manage Users...
- Create User...
 - Lookup user by email address...
 - Change other user's password...
 - Users per Role...
- Manage Classification...
 - Configure display contexts...
 - Export ontology...
- Refresh all

Find Resources



Clinical Knowledge Manager

All Archetypes

Team: All teams

Filter search box with + and - icons

- ▶ EHR Archetypes
 - ▶ Cluster
 - ▶ Composition
 - ▶ Element
 - ▶ Entry
 - ▶ Action
 - ▶ Evaluation
 - ▶ Observation
 - ▶ Instruction
 - ▶ Admin
 - ▶ Section
 - ▶ Structure
- ▶ Demographic Model Archetypes

New and modified Archetypes +

Checked-out Archetypes +

Archetype watchlist +

Resource Domain & Profession EHR Class Purpose Subject Location Country & Language

- ▶ Recording Data
 - Assessment
 - Calculation
 - ▶ Examination
 - ▶ Physical
 - Cardiovascular
 - Ear, Nose, Throat
 - Eye
 - Gastrointestinal
 - Gynaecological
 - Lymphatic
 - Musculoskeletal
 - Neurological
 - Obstetric/Maternity
 - Periphery
 - Respiratory
 - Skin
 - Using device
 - History
 - ▶ Investigations
 - Imaging
 - ▶ Laboratory
 - Biochemical
- ▶ Specific Type Of Care
 - ▶ All types of care
 - Chronic Disease management
 - Medication management
 - Peri-operative
 - Perinatal care
 - Preventive Health
- ▶ Type Of Data
 - ▶ All types of data
 - Clinical
 - Non-clinical
 - Persistent Summary
 - Research
 - Screening checklist or questionnaire
 - Specific visit/activity record
 - Statements of exclusion

Quality Metrics

- ▶ Development Process
 - Scope
 - Maximal data set/Universal use case
 - Granularity
 - Design
- Inclusion in Library
- ▶ Review Process
- ▶ Future
 - Endorsement
 - Usage statistics (not downloads)
 - ?End user maintained

Adverse Reaction

Created on 23-Jul-2008

Content Status

Team review

Select new status

Total number of review rounds	2
Total number of reviewers	19
Total number of reviews	26
Initial review round initiation date	03-Jul-2009
Latest review round completion date	16-Mar-2012

Recommendations - Latest review round

Accept	1 (13%)
Minor Revision	5 (63%)
Major Revision	2 (25%)
Reject	0 (0%)

Recommendations - Last review of each reviewer

Accept	2 (11%)
Minor Revision	11 (58%)
Major Revision	5 (26%)
Reject	0 (0%)

Reviewer Community

Administrator	1
Clinicians	12
Consumer	2
Health Informatics/Health IT	11
Student	0
Terminologist	0

Editorial skillsets

- ▶ Technical understanding
- ▶ Informatics understanding
- ▶ Clinical domain knowledge
 - Project clinical reference groups
 - Professional clinical colleges
 - Driving quality in EHRs

Cross-domain ‘federation’

- ▶ Networked repositories
 - Shared assets
 - Change requests
- ▶ Requires service definition for cross-repository communication
- ▶ Requires better understanding of governance issues
 - Experience with Projects will be valuable
- ▶ ? openEHR “Federation” of networked repositories
 - Namespace allocation
 - DNS type domain lookup
 - Light governance

Discussion