

Modeling Patient Data and Medical Knowledge

Qing's model consists of 3 layers:

- Core GLIF that distinguishes between literals and variables
- RIM that models patient data
- Medical Knowledge that models medical knowledge

Samson's model consists of 3 parts:

- EPR_Entry that models patient data
 - demographics
 - Note Entries (observations at a single point in time)
 - Problem list entry (problems over a duration of time)
 - Encounter
 - Medication
 - Adverse Reaction
 - Canonical Terms Metaclass hierarchy that defines a metaclass hierarchy and attributes of general medical concepts, such as diagnostic test results, medical condition, diagnostic procedures, etc.
 - Medical_Domain class hierarchy that models medical knowledge. Classes in this hierarchy can be instances of the Canonical Terms Metaclass hierarchy. For example, different subclasses of Laboratory_Test can be instances of the Diagnostic_Panel_Metaclass, Interval_Valued_Atomic_Test_Metaclass, Multiple_Valued_Test_Metaclass, or Ordinal_Valued_Atomic_Test_Metaclass)
- *Criteria* have attributes that point to medical domain concepts (e.g., activity intolerance due to back pain) and to EPR_Entries (e.g., Problem List).
- *Action Specifications* have attributes that point to medical domain concepts.

USAM defines patient data and medical knowledge in a single framework. Everything is a service. Services in definition mood represent medical knowledge, while services in event mood represent patient data. The event criterion mood is used to represent criteria for performing a service. USAM has different services. They are: (medical) Observation, (medical) Condition, (medical) Procedure, and Medication.