201912 Generic Pathology Information Model for Laboratory Test Result Reporting in the UK (FHIR and SNOMED)

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Summary
Work has been undertaken in the UK to develop a generic, standards agnostic logical representation of the key business entities and data elements that are used to support the sharing of pathology test results. This paper explores the approach taken and the role of SNOMED CT and FHIR.

Audience
Clinical, Technical

Learning Objectives

Gain an understanding of:

1. An approach for designing logical information models that can work across different messaging specifications.
2. Considerations/implementation patterns for SNOMED CT terminology binding with an information model (specifically FHIR).
3. Lessons learned from the work undertaken.

Abstract

In the UK, as part of the transition from READ codes to SNOMED CT a significant upgrade of Pathology test reporting is being planned. Three coordinated projects are working on a SNOMED-based Unified Test List (UTL); a generic Pathology Information Model for FHIR-based messaging; and a new model for Units of Measure (UoM).

The Pathology Information Model provides a standards agnostic, logical representation of the key business entities and data elements that are used to support the sharing of pathology test results. This allows it to be transformed into specifications that are complaint with HL7 v2, HL7 FHIR and an old standard, PMIP-EDIFACT. The model has been developed with input from a range of clinical, business and technical stakeholder groups. Reference has also been made to existing pathology related standards and specifications.
The model also allows loose coupling between the terminology (SNOMED CT) and the information model, allowing SNOMED CT to be replaced by other coding systems. So it could be used as the basis of cross-border exchange of laboratory test results between SNOMED CT member countries and non-member countries.

Reference Documentation