



Houston...we have a situation within our Info Model!

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Audience

Individuals involved in systems design, SNOMED CT implementation, post-coordination, terminology development and data-exchange.

Objectives

Demonstrate the use of Situation with explicit context as the preferred method to represent and exchange clinical findings with temporal conditions and negation between information systems using examples from surgical pathology.

Abstract

A review of common clinical findings within the domain of surgical pathology highlights the need to employ post-coordinated expressions using situation with explicit context. Notably, some final diagnoses must assert both a positive finding that is concurrent with a negative or absence finding, and the use of situation with explicit context in post-coordinated expressions enables the terminologist to properly represent such clinical findings. While the debate regarding the interaction between terminologies and information models rages on, the findings from this research support the use of Situations with explicit context for deployment of a post-coordinated database to serve surgical pathology.

The case is made in this presentation that SNOMED CT and the situation hierarchy ensures necessary and accurate representation of clinical assertions that supports interoperability of data between systems. Standard message formats with standard data representation are necessary for successful data exchange. Although the information model can manage temporal conditions and negation, information models vary widely from use case to use case including the management of temporal information and a standard for interoperation cannot be assumed. Relying solely upon the information model approach to manage context, therefore, may introduce ambiguity or lead to incorrect data interpretations during data exchange. Issues are discussed concerning information modeling and interoperability when situations are used. Possible solutions are proposed.