Using epSOS assets to ramp up SNOMED CT implementation
The Portuguese Case Study on Allergies

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Audience

National strategists interested in accelerate national strategy for adopting SNOMED CT. Clinical content managers, namely ones with special focus on Allergies domain.

Objectives

Demonstrate how to ramp up a national implementation strategy of SNOMED CT by reusing epSOS assets. Understand the information model and SNOMED CT usage underlying the Portuguese Allergies approach.

Abstract

The Portuguese case Study on Allergies describes the Portuguese national strategy for starting the adoption of SNOMED CT in Portugal, by reusing the epSOS Master Value Catalog (MVC[1]). The MVC is a semantic outcome of epSOS and the subset on "allergies" and was used to build the Portuguese Catalogue for Allergies and other Adverse Events (CPARA), in 2012. This allowed a nationwide structured registry on Allergies for the first time, in Portugal.

Allergic diseases incidence is increasing exponentially worldwide. Allergies documentation and the sharing of these data are vital to ensure patient's safety. In 2012, it became evident that national clinical records lacked structure and registration of these entities, due in part to an absence of a national policy regarding the Allergies domain. This awareness triggered the work ahead.

The Portuguese multidisciplinary team, involving clinicians, terminologists, ICT engineers), addressed this problem and gave a deep look into the epSOS MVC. Relevant value sets were selected according to Portuguese reality, and an information model to the Allergies realm was built. The foundation value sets identified were: Adverse Event Type, Allergen No Drugs (food and other agents), Reaction Allergy, Severity, Status, and the Information Source. For most, the terminology used was SNOMED CT. Currently, CPARA is being used all over the country to register allergies and adverse events from different sources (e.g. GP's, patients) and different institutions belonging to the National Health system.

The Portuguese participation in epSOS was mostly devoted to technical domains, namely architecture and implementation of open source technological components. However, to achieve full interoperability demanded by epSOS services (i.e. Patient Summary, ePrescription), the countries involved needed to address several challenges related to semantic, organizational, legal and political interoperability.

Some important lessons were learned in epSOS and echoed nationwide. Namely, the Refsets are dynamic structures that require regular update that needs to be addressed. On the other hand, defining a Refset doesn't assure adoption and implementation by different stakeholders: an engagement strategy is vital. And finally and perhaps the most important one, there isn't an ideal classification system for all clinical areas.

References

1. The experience of selecting the code systems for the development of the epSOS (MVC)
   http://www.epsos.eu/technical-background/semantic-issues.html
2. Portuguese Catalogue for Allergies and Adverse Reactions http://www.dgs.pt/?cr=22603