

201941 The use of SNOMED CT in the registry and standardization of allergies and adverse reactions in Portugal

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Summary

The Portuguese Catalog for Allergies and Adverse Reactions (CPARA) is the first structured register of allergies and adverse reactions in Portugal, built upon the SNOMED CT clinical terminology, whose nationwide implementation since 2012 heavily contributes to patient safety.

Audience

Clinical, Technical , Policy/administration

Learning Objectives

1. Sharing of good practices in the use of SNOMED CT in the scope of allergies and adverse reactions;
2. Use of SNOMED CT in the construction of a national patient summary;
3. Integration between central and local information systems in the construction of a national allergies registry;
4. Patient Safety.

Abstract

The World Allergy Organization estimates that hypersensitivity diseases affect about 30 to 40% of the world population. In Portugal, it is estimated that more than 2 million people have some form of allergy.

The Portuguese Catalog for Allergies and Adverse Reactions (CPARA) is the first structured register of allergies and adverse reactions in Portugal, which arose from the need to standardize concepts and records related to this subject.

CPARA is built upon the SNOMED CT clinical terminology and is structured into 3 main groups being: (1) Drug Allergenic's, (2) Food Allergenic's and (3) Other Allergenic's. In place since 2012, CPARA has been 7 years into production and is one of the semantic catalogs that supports the Resumo Clínico Único do Utente (RCU2), the Portuguese national patient summary that aggregates patient information from different information systems into a single, structured, HL7 Clinical Document Architecture structure.

Whenever a doctor prescribes a drug to a patient in Portugal, he or she is automatically informed of possible allergies or adverse reactions a person may experience by the intake of that drug, greatly improving upon patient safety. On average, there are 59 warnings related to patient's prior allergic reactions send out to doctors every day. In 2019, there were on average 1760 warning per month from January to March.

This is made possible due to the existence of a centralized and standardized record of allergies and adverse reactions, as well as by the existence of centralized patient, institution's and medical prescriptions registries.



The RCU2 architecture and the adoption of CPARA by several information systems like SClínico H and SClínico CSP (the Portuguese Ministry Electronic Health Records for hospital and primary care) enables doctors to access and write to the history of a patient's allergies in their local systems, both in primary care units and hospitals, having that information synchronized to the central registry, via the Portuguese National Broker (PNB).

Additionally, Portuguese citizens can, by themselves, register their allergies into the national registry via the Área do Cidadão (Citizen Area) web portal, a platform that allows citizens to access all of their health information, as well as to manage several kinds of consents. Citizens can also access their allergy record via the MySNS Wallet, a mobile application from the Ministry of Health that returns health information existing in different information systems.

This all contributes to the increase in trust of both patients and doctors in the National Health Service.

Information maintained in the Allergies Registry in Portugal is also made available to the public, anonymized, for research purposes. In 2018 there were 93 759 allergies registered in hospital settings, as well as 2513 cases of allergic reactions to broad spectrum penicillin, 1200 allergic reactions triggered by mites and 729 due to pollen; not accounting for primary care settings.