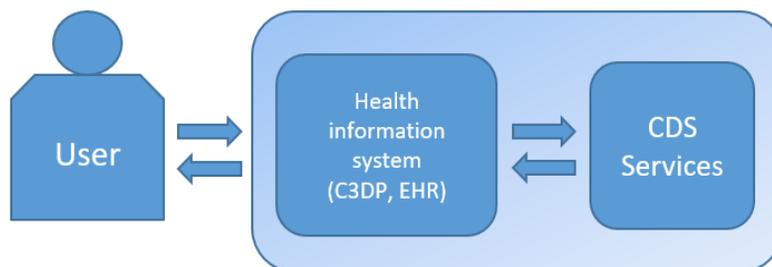


Purpose

Clinical practice guidelines (CPGs) are of great importance to clinicians when it comes to providing high quality care to patients – especially to a primary care physician who meets a large variety of patients with different conditions. However, providing CPGs to the practicing clinicians is a process that requires a big communication effort and it can also take a long time before new information is spread out to a majority of practicing clinicians. These problems can be addressed by digitising the CPGs – implementing them as Clinical Decision Support (CDS) services into the electronic health record (EHR) system. Having CPGs integrated as CDS services at the right place in the EHR can easily support the clinician when it comes to having the right information at the right time. In the C3-Cloud project, the CDS services are implemented in the Coordinated Care and Cure Delivery Platform (C3DP) in order to assist the clinicians in taking the important care decisions for the patient with at least two chronic diseases (of diabetes mellitus type 2, heart failure, renal failure, and depression).

High level summary of its functionality

The CDS Services are supporting modules of the C3DP which is the user facing interface. The CDS Services enable the reconciliation of clinical guidelines for diseases, risk stratification, poly-pharmacy management and care plan goal setting and monitoring. As part of C3DP platform, CDS services access patient data from different sources to subsequently fuse and analyse all these data.



What makes it great

Integration of healthcare information systems is usually a process that requires a relatively large work effort. The reasons why can vary but are mostly related to a lack of standardised ways of building software which creates the need of investing more time in mapping data elements and ensuring that data is seamlessly flowing through the system barriers. The CDS Services in the C3-Cloud solution are built based on the Cambio-produced Guideline Definition Language v2 (GDL2) which is a part of the openEHR official specification. This means that the CDS Services are relatively easy to integrate into other systems, provided they also utilise medical informatics standards.

Applying CDS Services in a clinical setting can significantly improve the produced care by making sure that clinicians make well-informed decisions and increasing adherence to guidelines.

How it can be used

As the CDS Services used for the C3-Cloud project are based on medical informatics standards, they have the potential to be easily integrated into other health information systems. They can be either directly coupled with an EHR system, or as in the C3-Cloud solution be coupled with another user interface. Bearing the care market needs in mind – the CDS Services are flexible in terms of what kind of clinical decision it shall support, in which context and for which user it shall be available. In general, CDS Services are and can be used as live alerting features, clinician-invoked applications or background calculation services inside an EHR.