

CLINICAL DECISION SUPPORT

Expressing and sharing computerized clinical decision support (CDS) content across languages and technical platforms has been an evasive goal for a long time. Lack of commonly shared clinical information models and flexible support for various terminology resources have been identified as two main challenges for sharing detailed clinical rules between sites.

Clinical practice guidelines (CPG) are statements that have been systematically developed to assist practitioners (and patients) in making appropriate decisions about healthcare under specific clinical circumstances. They are generally the result of months, sometimes decades, of observational and/or interventional studies on large population groups that share certain characteristics. Sometimes, such CPGs offer assistance on when and what diagnostic or screening tests should be performed, treatment modalities to be used and other details of clinical practice.

The overarching desire is to contribute to the improvement of healthcare quality. Because of the vast number of potential clinical scenarios, CPG:s are prone to rapid change and quickly become outdated and/or too voluminous in both content and format, and difficult to consult in real-time. In an attempt to target these issues, computerized clinical decision support applications have been developed and integrated into the clinical workflow process – these applications can analyze healthcare data at the point of care, thus delivering timely, accurate, guideline-based, and personalized recommendations that enhance the overall health of patients and improve the quality and efficiency of healthcare. These applications are referred to as computerized clinical decision support systems (CDSS).