The Evolution of a Clinical Decision Support Request Form

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Introduction/Background

A large academic hospital organization with seven affiliates decided to transition from multiple home grown and commercial systems to one commercial electronic health record (EHR). The task to develop a standardized request form that would capture necessary elements of clinical decision support (CDS) was essential to inventory current state CDS, to migrate current state CDS into the new system, to evaluate new CDS requests and to maintain consistency among CDS of different origins.

Methods

We formed a group of clinical informaticians, knowledge Engineers (KEs), and clinical experts who decided on the necessary data elements for a CDS request form[1]. The initial set of requested data resulted in a seven page word document with embedded macros. This form was significantly revised several times based upon the feedback from requestors, application teams, and clinical informatics team members. Revisions were further made based on CDS key element requirements, functional completeness, format and usability. The database where this information was kept also changed during this time. The result for managing requests for CDS interventions become a concise, portable, and useful Excel spreadsheet with the minimally necessary data elements that was easily loaded into an open source content management system (JIRA). Different artifacts were required to support other stages of the CDS life cycle.

Results

The CDS Request Form evolved from a large multi-purpose word document into an excel spreadsheet with more concise data element fields. The spreadsheet includes specific tabs that represent different stages of our CDS life cycle. We are working toward a requester-facing online form which prompts for all necessary elements of the CDS request without overwhelming the users.

Discussion

Our CDS transition process included creating an inventory of current state CDS, the transformation and migration of current state CDS into a new commercial EHR system, as well as tracking and evaluating new CDS requests. Satisfying all these different requirements within the short period of time allocated for the implementation of the new system posed a significant challenge for us. Another challenge was the relative unfamiliarity with the new system, so requirements remained a moving target. While we are still continuously making improvements to the CDS request process, we have learned many lessons during the evolution of the CDS request form so far. We have learned to organize and frame the required elements based on EHR functionality and workflow; we have also learned the impact of the request form has on different stages of the CDS life cycle.

References

1. Campbell, Robert. "The Five Rights of Clinical Decision Support: CDS Tools Helpful for Meeting Meaningful Use." *Journal of AHIMA* 84, no.10 (October 2013): 42-47.