Process Workflows as a Basis for Testing and Training

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Introduction

We are working on a collaborative project between two major academic medical centers to create one clinical documentation system. The clinical leads of the project have little formal training in systems lifecycle. The task at hand is to teach and lead the process in a timely fashion.

We are developing an acute care documentation system for all clinicians. This involves many iterations of a simple workflow process. To ease the various parts of the implementation, we encouraged our staff to create a process and then build on it for use in testing and training scenarios. The ability to take this information and apply it to other phases of the project will assist staff to become more adept and efficient.

Method

A staff of approximately thirty is responsible for designing, building, validating, testing, and training for the implementation. We are currently entering the testing phase of this three year project, which incorporates Unit Testing, Functional Testing and Integrative Testing. The staff has created workflow diagrams (VISIO) for depicting the future workflow process. In an effort to streamline testing we have taken the VISIO diagrams and used the flow to create line items for testing the system. This has helped the staff to maintain continuity for workflows and to minimize work intensity for creating the testing documents.

Training documents will use the VISIO diagrams as a guideline for looking at what was done in "Current Workflow" and differentiating that from the "Future Workflow". The individual steps in the testing documentation can be used as a guide for training the end user in the new system. Handouts and teaching tools can be modified using the specific steps needed to enter information into the system.

Results

In re-evaluating expectations for both testing and training, we developed a plan to incorporate the actual end users to help us develop pertinent clinical documentation scenarios. The twelve cases were originally written as narratives by the clinicians with actual day to day occurrences. The clinical leads in the project took the narratives and then applied them to a grid on an excel spreadsheet that allowed for the following to be documented: User, Action, Expected result in the application, and Pass/Fail. These excel spreadsheets were designed to guide documentation on test patients, mimicking a routine hospital visit for that diagnosis. The next step was to use the Future Workflow VISIO and create a training module around the specific process with individual steps that the end user needs to follow for documentation.

Discussion

Using scenarios helped the end user to apply new workflow learning with past patient care actions. Using the workflow documentation in various settings helped the clinical leads to become experts with the system and develop a framework for the entire process.