Issue

Information systems that were implemented a few years ago can gradually stagnate and no longer meet a hospital’s needs. In the dynamic healthcare delivery environment, processes are constantly changing – especially in the patient care areas. Information systems the hospital purchased and designed to support patient care processes 1 to 2 years ago can easily become out of date. Reimplementing versus installing a new system can be an effective approach to bring system’s functionality back into alignment.

Environment

This case study describes the experience of a stand-alone community hospital as it struggled with a nursing documentation application that appeared to be obsolete. Pressures were mounting to replace the MEDITECH nursing documentation application with one from a different vendor.

The hospital utilizes MEDITECH’s Magic Hospital Information System and Laboratory Information System, plus 23 modules covering Pharmacy, Nursing, Emergency Department, Business Office, and Radiology. It also uses several interfaced non-MEDITECH applications.

The nursing department has a staff of over 800 professionals organized around 20 units. Each of the units had been utilizing the MEDITECH nursing documentation module for the last several years to monitor, manage and track patient care.

The MEDITECH nursing documentation system is built around the concept of “interventions” and “care plans.” Interventions are defined, programmed computer screens used to enter and view patient information. It is hospital policy for the nurses to document each patient’s care into the nursing documentation system during a shift, including a shift end summary. The information is available online for any authorized clinician or physician. The patient information is printed after discharge and becomes part of the permanent medical record folder. The information is also transferred to the hospital's archived computer files.

Proliferation of Interventions

Since initially implementing MEDITECH’s nursing documentation application, the nursing staff had generated myriad requests to significantly increase documentation “functionality” and perceived utility. IT, responding to these needs, added many interventions and care plans, expanding and revising them over the years. However, nursing was never satisfied that IT was making enough revisions, or that the documentation system met their needs.

In the past few years, over 700 interventions and over 300 care plans were developed. This documentation explosion created numerous issues and inefficiencies that impacted the nursing staffs' workload. There were redundancies in data capture, replication of work effort, lack of information sharing, duplication of interventions, and in general, an increasing number of interventions that were unused. Most of these issues evolved because of a well-intentioned willingness on the part of IT to be responsive, as well as the lack of policies or guidelines for managing the nursing documentation system.
This uncontrolled, request-driven growth impacted nursing care processes. It also resulted in additional time to document care, and increased the complexity of the training.

Evaluation and Reimplementation

Facing Up To The Challenge  It became apparent that this ad hoc, ungoverned process for developing nursing documentation required a major intervention. The hospital had been managing and updating nursing documentation at the unit level. The Vice President of Patient Care recognized that this process had to be redesigned and refocused at the hospital-wide level.

To achieve this would require a global, redesign approach. It required nurses from multiple units, plus Information Systems and Medical Records personnel, to review and evaluate each unit’s current documentation approach and needs, and to design improvements.

Executive Leadership  The Vice President of Patient Care was a former nurse manager at the hospital. She had hospital-wide leadership credibility and the firm support of the CEO and her peers on the executive staff. She established a Nursing Documentation Committee, appointing most of its members. This Committee elicited cooperation and participation from all the nursing units by appointing representatives who would voice each unit’s specific needs, yet approach it from a hospital-wide perspective. In addition, Information Systems and Medical Records were integral members of the Committee, providing technical and record management expertise.

At the first meeting the Committee established its charter, and defined the scope and objectives for its work. The scope was to “review and evaluate all nursing documentation screens, with the goal of simplifying, streamlining and consolidating the number of interventions and care plans”. The objectives were to:

- Consolidate nursing documentation to improve quality
- Simplify the data entry process to bring efficiencies to the documentation process
- Improve the flow of information among departments
- Reduce the amount of redundant data entry
- Provide prompts to the nursing staff to be all inclusive in patient documentation
- Develop an ongoing process for monitoring and updating nursing documentation

As part of the overall nursing documentation initiative the Committee established, with the help and guidance of INFOHEALTH, a project management methodology to control the reporting, task assignments and work flows.

The Committee met weekly to review the current interventions and care plans and to develop improvements. Each member of the team was assigned a specific area, such as wound care. The assignee was requested to review all current interventions and care plans, determine what could be eliminated or consolidated, how the interventions could be simplified, and develop a specification for the new or revised intervention or care plan.
These specifications were presented to the Committee for discussion and approval to ensure they met the hospital-wide needs of the nursing staff. In addition, Information Systems provided a technical assessment of the specifications to ensure they could be programmed in the MEDITECH system. Once the specifications were completed and approved, Information Systems programmed them into a test environment so they could be evaluated by the nursing staff.

**Iterative Process** Prior to the release of the new documentation screens the Nursing Documentation Committee met with all the nursing units to demonstrate them and discuss the impact of the changes. All input from the meetings was reviewed in depth, and suggested improvements were incorporated.

After this review process, the new or revised interventions and care plans were set up on specific terminals throughout the hospital so that nursing could use them on a trial basis. The house-wide nursing staff was requested to write down their comments so the Committee could evaluate and make any final revisions. The results of this review were evaluated by the Committee and more changes were made. Once the updates were approved, the care plans were moved to the production environment.

**Migration—Not Cold Turkey** When the new revised interventions and care plans were moved to the production environment they were only used on the new patients. Existing patients remained on the old documentation system until they were discharged. This prevented any confusion with the patient’s medical records; however, this did present some very short-term process and training challenges. Once the existing patients were cycled through the hospital and discharged, all patients were documented using the new interventions and care plans. As a contingency the old interventions and care plans were left on the system until it was determined by the Committee and nursing administration -- not by IT-- that they could be eliminated.

**RESULTS AND BENEFITS**

The transition to the new interventions and care plans had a major positive impact on the hospital. For example, the reimplementation reduced the number of interventions, just within the Med/Surg area, from over 300 to 20, and the number of care plans from over 40 to 15. The results in other units were similar. The general comments from the nursing staff were that the new interventions and care plans made documenting patient care a great deal easier and significantly more effective.

Based on the success of the reimplementation project, the hospital made the Committee a standing committee. Its role is to serve as a review board for all nursing documentation and authorize any changes or additions. The Committee also works with Information Systems as a team member on all projects that affect nursing documentation.

The benefits of evaluating and reimplementing an application are often overshadowed by the perceived costs, both in departmental staff and IT time. In this case, the higher satisfaction of the nursing staff with the MEDITECH care system prevented the very expensive replacement of MEDITECH. The operational benefits, when viewed on a longitudinal basis, continue to be outstanding. Some of the major visible benefits include the following:
• Increased nursing staff efficiency in documenting care
• Increased nursing staff productivity due to better integrated patient information
• More efficient operation of the MEDITECH system due to elimination of hundreds of obsolete intervention screens
• Lower maintenance of the nursing documentation system by IT analysts (e.g. IT has to maintain only 20 instead of 300 Med-Surg screens), giving them more time to respond to other needed maintenance demands

An indirect benefit is the change in the hospital culture towards project planning and management. The INFOHEALTH project-planning model established a manageable and productive process that is now being used on all projects.

**SUMMARY**

Reimplementation of the nursing documentation system first came about as the result of outstanding senior management leadership. The Vice President of Nursing listened to her staff, took input and considered the options, then led the change process. She carefully evaluated the value and potential of the existing MEDITECH system instead of yielding to pressure to buy a new one. This executive “ownership” of the problem is critical, as the necessary changes were process versus IT system based.

A solid project management methodology, understood and agreed-to by all, and led by a competent project manager, is required to insure that the project stays focused on its charter and achieves the stated and desired goals.

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