CAP▼ CASE STUDY

On Demand Printing & Publishing Consulting Service
Production Workflow Solutions Consulting Service

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Standard Register/Bon Secours Richmond Health System

Company Background

Bon Secours International is a worldwide religious institution that was founded more than 175 years ago in Paris, France. Its mission is to provide "good help to those in need." In the United States, Bon Secours Health System, Inc. is a non-profit Catholic healthcare system that maintains 24 acute care hospitals, nine long-term care facilities, and eight assisted living facilities in 13 regional healthcare systems. The U.S. operation, which was founded in 1983 and is headquartered in Marriottsville, Maryland, maintains more than 7,100 beds and has 27,000 employees.

Under this umbrella, Bon Secours Richmond Health System (BSRHS) serves central Virginia through three acute care hospitals. The organization maintains more than 700 beds, employs more than 5,000 people, and posted revenues of more than $2 billion in 2002.

Key Business Issues and Challenges

Located in the burgeoning region surrounding Richmond, Virginia, BSRHS was experiencing growing pains. As the population increased, so did the patient load at its hospitals. According to Courtney Cook, Administrative Director of Patient Access at BSRHS, the patient registration process had evolved as the hospitals grew and in recent years had become extremely bogged down with paperwork requirements dictated by the hospital, insurance carriers, the legal profession, and governmental regulators.

Upon admission, each patient received a packet that contained:

- Forms: typically separate forms that collected patient demographic and medical history information for the hospital, doctors, and insurance carriers.

- Information sheets: briefed patients on patient-specific procedures, patient's bills-of-rights (HIPAA, Medicare, etc.), hospital policies and procedures, and general contact information.

- Identification materials: wristbands used for identification and tracking purposes for the duration of the patient's stay in the hospital.

The registration process was cumbersome and error-prone as the admissions department had to manually retrieve, reproduce, create, and assemble the customized materials for each incoming patient. Multi-part forms were retrieved

from filing cabinets, information sheets were pulled from staging areas or reproduced on a copier, and wristbands were produced on an embosser. In addition, all patient data was captured manually, which created additional opportunities for error. Further complicating the communication flow, once the patient information was captured, it was manually routed to the appropriate department for patient care, patient tracking, or billing purposes.

BSRHS decided to improve the efficiency of the patient registration process for a number of reasons. First, the process was extremely time-consuming and negatively affected the efficiency of the admissions process and the number of patients the admitting department could accommodate. Next, the process was expensive in that it was labor-intensive as well as dependent on the use of costly supplies such as multi-part forms and single-function machines. Also, the process was confusing as so much information was communicated to the incoming patient in imprecise and inconsistent ways. Finally, BSRHS wanted to streamline the patient information flow so that information captured when the patient was admitted was immediately accessible by all healthcare professionals serving the patient.

Solution

BSRHS engaged Standard Register, a leader in document management and automation, to install its Patient Link-Up Enterprise (PLUE) System. An integrated solution that combines bar code technology and forms automation software, PLUE streamlined the data collection process and information flow throughout the BSRHS network. Standard Register's suite of technology products has been implemented in hundreds of hospitals since 1996.

Two key capabilities of PLUE were of particular value to BSRHS in optimizing the patient admission procedure. They included the ability to:

- Capture, store, and retrieve patient information and electronically route it to any department within the hospital.

- Store, access, and revise forms electronically, then print them on demand.

Now, instead of manually compiling the materials in the patient registration packet, all components are stored in the system and printed on demand. Human error is minimized as all documentation is created from data provided by the patient upon admission. Information that is consistently required on forms, such as patient name, address, and other identifying data, is automatically incorporated into the forms when they are printed, increasing the accuracy and readability of key information. All materials contain a unique bar code that tracks pertinent patient data, making it immediately available for dissemination throughout the hospital.

All materials, including forms, information sheets, and patient identification wristbands, are produced on a single output device. This consolidation enabled BSRHS to eliminate an embosser, copier, fax machine, data card machine, and printer with one multifunction device that can accommodate all of its scanning and output needs.

The system was phased into the BSRHS network one hospital at a time over a six-week period, beginning in April 2002.

Results

Ms. Cook cites a number of substantial benefits that were realized with the implementation of PLUE:

- BSRHS now produces an automated admitting packet that is customized based on the hospital service and needs of each patient. This automation has significantly reduced the time required to complete the patient registration, therefore reducing patient wait times. As one admitting nurse testifies, "Before we started scanning Pharmacy orders, it took an average of 25 - 30 minutes to completely admit a patient. I timed several on a stop watch. Yesterday (after the implementation of PLUE) I wasn't timing it, but I believe I did one in 12 minutes flat. Now that's efficiency!"

- The workflow was optimized as admissions personnel no longer had to access multiple machines and multiple systems to compile registration packets.

- The admissions process is significantly more efficient and has been standardized across all BSRHS facilities, leading to operating efficiencies in all departments of the hospital chain.

- The doctors and healthcare professionals express a higher level of satisfaction for two primary reasons:

  - ➢ They are able to invest more time on patient care and less time on documentation.

  - ➢ Accurate, legible information is communicated in a more timely manner so diagnosis and treatment can begin more quickly.

- Patient services have improved as more patient-specific information is captured and communicated through use of the bar code system.

- Data automation has led to an overall reduction in errors and more accurate and timely information communication.

- Forms distribution is simplified. Instead of hand-delivering forms, they are now electronically distributed to remote locations.

- Liability risks have been minimized as now all key information that must be communicated to patients by law is automatically printed and included in the patient registration packets.

Lessons Learned and Future Plans

Although extremely pleased with PLUE and the results BSRHS has realized, the hospital administrators recommend investing pre-installation time working through workflow and implementation issues to minimize set backs and revisions during the installation and activation phases. According to Ms. Cook, "One can never spend too much time anticipating surprises in the transition process, particularly when you're dealing with a complex project."

PLUE offers many options for expansion, which is one of the reasons the system was selected. BSRHS representatives wanted a "solution that was flexible enough to grow with us." BSRHS continues to use multi-part forms for certain applications and will investigate migrating these documents to electronic formats. Also, the organization is assessing the benefits of incorporating photos on patient identification wristbands, adding an additional security layer. Finally, use of bar codes for patient data tracking generates other opportunities that will lead to broader information flow and operating efficiencies in other sectors of the BSRHS network. In particular, the organization is exploring ways of linking in the pharmacy to the patient care process for more accurate medication prescriptions and usage information.