

Healthcare Process Management

Workflow solution promotes efficiency, fosters best practices and enhances clinical quality.

“Soarian®—and our partnership with Siemens—brings innovation to our clinical care. Especially now, when healthcare organizations are asked to do more with less, we believe projects like this help us deliver the highest quality care and a superior patient experience.”

John J. Lynch III, FACHE

President and CEO
Main Line Health
Bryn Mawr, Pa.

The principles of business process management, applied for years in other fields, are relatively new to healthcare. One reason is that conventional healthcare workflow solutions are developed as passive utilities, dependent on user action and instruction. These traditional transaction-based healthcare solutions were not designed to help clinicians build knowledge of the process into the system.

But Main Line Health (MLH), Bryn Mawr, Pa., has successfully implemented innovative technology that *can* continuously improve processes and evolve with change—and, ultimately, promote efficiency, foster best practices and enhance clinical quality.

A comprehensive health system with four acute-care hospitals, a rehabilitation facility and several health centers, MLH decided several years ago to replace its existing IT system with state-of-the-art technology to support a computerized physician order entry (CPOE) solution. Ultimately, MLH engaged Siemens Medical’s Soarian® IT because of the breakthrough improvement Siemens had made to CPOE: integrating healthcare process management capabilities with its CPOE tools.

Through their work with Soarian, MLH’s leaders have learned that effective CPOE is not just about entering

orders; it is about creating an interactive care model that supports decision making and reduces variances in care.

MLH began using Soarian’s process management tool by focusing on simple workflows such as charting and infection control reminders. With CPOE fully implemented, MLH was eager to leverage the power of Soarian’s workflow engine at a higher level. To that end, beginning in summer 2010, MLH targeted the clinical pathways for six high-volume, high-impact scenarios:

- Falls
- Hospital-acquired pressure ulcers
- Acute myocardial infarction
- Congestive heart failure
- Central line insertion
- Rapid response

For each of these scenarios and their respective workflows, MLH established targeted metrics based on an initial, three-month minimum baseline collection period before workflow implementation. After implementation, MLH collected automated, three-month post-workflow data sets and reports that allow the health system to evaluate each metric. MLH is currently analyzing the data and the impact on care.

Although work in the remaining four scenarios and workflows continues, MLH’s clinicians and patients benefit from this new approach to workflow, which has already demonstrated its value through the following:

Integration of Best Practices

The workflow process developed for central line insertions enables MLH to collect more specific and extensive data on the number, types and locations of central lines.

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"This is not just an automated process of documentation—it also includes alerts and reminders at specific points based on policies and best practices for managing central lines," says Barbara B. Frink, PhD, RN, vice president, clinical excellence and informatics, at MLH. "If we know that the recommended practice is to remove a line after a given period of time, the system alerts the clinician appropriately."

Comprehensive results related to central lines are being collected and made available to clinician managers and infection disease professionals to examine across the patient population, which will ultimately help MLH understand and continuously improve its central line practices.

Effective Allocation of Clinician Time

For patients with hospital-acquired pressure ulcers, nursing staff conduct point prevalence studies on a designated day each month by examining the patient's skin integrity. Then, via chart review, the number of people with signs of pressure ulcers is calculated against the total patient population, resulting in a percentage that reflects how many patients had pressure ulcers on that particular day. During the course of a year, this audit requires nurses to spend significant time away from activities related to direct patient care.

MLH is currently capturing data to identify the specific amount of time its nurses spend on chart reviews during point prevalence studies. MLH is currently piloting a new workflow process that automates and standardizes reporting for these chart reviews.

Proactive Approach to Patient Care

Many healthcare organizations have developed rapid response teams that—based on symptoms and other data—attempt to stave off potentially life-threatening situations. While this can be a highly intuitive practice, MLH is

developing an automated workflow that could identify more clearly which patients are at higher risk for needing rapid response intervention.

Currently, MLH is running an early warning system in the background for every patient. Specific clinical values are monitored and entered into a grid as part of a scoring system. After two months, MLH staff will compare the clinical indicators identified by the early warning system to those identified by the rapid response team to determine if automation can more clearly and quickly determine which patients are at risk for needing intervention.

Coordination of Teamwork

Harm Scherpbier, MD, MLH's chief medical information officer, believes that Soarian's ability to coordinate care among multiple players is one of its key differentiators.

"Through a single workflow, multiple people—from nurses to physicians to caseworkers—are assigned multiple tasks across care settings, departments and disciplines," says Scherpbier.

Soarian's workflow engine simultaneously helps coordinate teamwork among clinicians with a diverse array of roles by allocating tasks, adjusting to changes in patient conditions and moving process steps forward at the right time and in the right sequence.

For MLH, the power of Soarian has extended the benefits of business process management into the life-critical healthcare environment.

For more information, contact your Siemens Healthcare representative, call (888) 826-9702, or you may visit www.usa.siemens.com/healthcare.