



Carteret General Enhances Risk Avoidance Strategies with Senti7[®] Electronic Surveillance Technology

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CLIENT PROFILE

Carteret General Hospital (CGH) is a nonprofit, 135-bed hospital offering a full range of diagnostic and outpatient services. Located on the Crystal Coast of Morehead City, North Carolina, the hospital offers a full range of acute care, diagnostic and outpatient services, including the comprehensive Cancer Treatment Center, Wound Care Center, CGH Imaging Center, Hospice of Carteret County, Carteret Home Health, Cardiac Rehabilitation and a birthing center.

The Joint Commission–accredited hospital, which utilizes the MEDITECH electronic health record system, deployed Senti7[®] as part of an effort to improve workflow efficiencies and demonstrate the value of pharmacy activity.

“We wanted to have a system that would allow us to streamline paper processes so that pharmacy staff could focus on more high-level functions,” said Mike Soucie, PharmD, director of pharmacy and division director for clinical support services at CGH. “It was also important to have a system that could track the benefits of the changes we were making and demonstrate the pharmacy’s value in terms of cost avoidance.”

The Challenge: Demonstrating Pharmacy Value

The pharmacy department has historically been one of the highest cost centers in hospitals. New regulations and quality expectations are requiring that pharmacies allocate more resources to ensure that appropriate initiatives are in place that promote the highest level of patient care. At the same time, the pharmacy represents a prime area for improving cost efficiencies and identifying benchmarks for appropriate reimbursement.

CASE STUDY

CARTERET GENERAL HOSPITAL

Effectively communicating the pharmacy's value to the hospital is critical in today's lean budget climate. As CGH's pharmacy department set out to implement a new practice model that would decentralize pharmacists from the main pharmacy to be better dispersed throughout the hospital, it realized it needed an effective way to communicate and prove the model's value.

"Hospital administration and the board of directors were concerned with the additional salary that would be required to implement these new workflow models," Soucie emphasized. "We needed solid data that could really demonstrate the value of a high-level pharmacy intervention team in a community hospital performing on the floor in close collaboration with nurses and physicians."

The Challenge: Improving Workflows to Enhance Patient Care Initiatives

For the new decentralized workflow model to reach its full potential, staff time needed to be refocused on more interventions and risk avoidance strategies. Workflows needed to be changed to reflect a more proactive approach to medication management and early identification of situations that could potentially result in adverse events.

While CGH had been working through the MEDITECH pharmacy information system to generate needed data and reports, much of the workflow was still paper-based. Reports were generated daily, and pharmacists had to sift through the data to evaluate patient profiles and medications before determining needed interventions. Communication between pharmacists working different shifts was minimal as there was no effective means of logging reminders for incoming staff. The result was often cryptic notes written on paper reports.

Also of concern were overlapping workflows between pharmacy and infection prevention staff. Both departments were simultaneously looking for a solution that would streamline processes to minimize duplicated effort and maximize patient care initiatives.

Solution: Sentri7 Streamlines Pharmacy Workflows and Delivers Risk-Avoidance Value

CGH chose Sentri7 based on its proven track record of success, intuitive interface, flexibility and competitive pricing. By deploying an electronic surveillance solution to aggregate, monitor, and deliver critical patient data in real time, CGH was able to eliminate burdensome paper processes and advance patient care initiatives.

To date, CGH has achieved 100% utilization of the solution within its pharmacy staff in both centralized pharmacy and clinical locations. With the new time allotted to patient care initiatives, interventions have increased from hundreds tracked in the MEDITECH system to thousands through Sentri7. Within seven weeks of deployment, the pharmacy was also tracking monthly cost avoidance numbers equating to \$3.2 million to \$4.2 million a year.

"Sentri7 has clearly shaved off about two hours of a pharmacist's time per day, seven days a week," Soucie noted. "We use this time to focus on interventions rather than running reports, increasing our ability to enhance patient care and avoid adverse events."

During the vendor selection process, Soucie recalled that the infection control department was close to choosing a vendor to address antimicrobial stewardship alone until it was introduced to Sentri7. The solution's ability to meet the surveillance needs of the entire enterprise — pharmacy, infection prevention, quality improvement and medication management for clinicians across all departments — made the choice for one comprehensive solution easy.

"We were looking for a product that could conceivably help us with any drug in any lab combination—not just antibiotics or antimicrobials," Soucie said, pointing out that this approach would give staff more opportunity for interventions. "We determined that if we went with Sentri7, we could better address end goals for about the same cost or less."

Solid references from existing Sentri7 clients also contributed to CGH's comfort level with the product. Souci noted that as a small community hospital, CGH simply did not have the resources to be part of a test market bringing a new product into the market.

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*Mike Soucie, PharmD
Director of Pharmacy
Division Director for
Clinical Support Services
Carteret General Hospital*

The ability to customize clinical rules for patients proved a powerful function to complement risk avoidance strategies. CGH was able to write rules to proactively address anticoagulants, dose-dose adjustments for opioids, international normalized ratios, partial thromboplastin times and some formulary issues involving non-formulary rules. Soucie noted that the system allows for early identification of nuisance or ineffective alerts and that rules can easily be tweaked to be more purposeful.

Pharmacy staff also appreciated the availability of having two views: one for the patient and one for the broader rule-driven list. Depending on where pharmacy staff are in their workday, these views create efficiencies by allowing pharmacists to segregate their own patients first, then pull up the bigger picture view once they are caught up.

After a well-designed training program, full implementation took approximately four months. Soucie credits the quick uptake to project champions, who proactively sought buy-in from other staff by engaging them in the process. Beginning with Senti7 recommendations, staff offered suggestions on building the most effective rules to align with CGH's patients and workflows.

Conclusion: Improved Workflows That Advance Patient Care and Demonstrate Pharmacy Value

Senti7 has been able to deliver the desired workflow benefits through its ability to efficiently aggregate data in real time, providing an accurate snapshot of interventions needed at any moment. No longer are pharmacists tasked with the daily burden of weeding through paper reports, saving hours of staff time each day.

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Communication between pharmacists has also improved dramatically. Scrawled notes on paper reports are now typed messages readily available through Senti7. Staff not only saves time through efficient identification of interventions, but they are also able to identify more opportunities thanks to better information. And because pharmacists have more access to notes recorded by colleagues on previous shifts, patient safety is enhanced due to more immediate attention to needs or potential issues.

“Now reminders and pertinent information are typed and tagged to a particular patient and particular intervention. Pharmacists really don’t have to search for it; it’s right there,” Soucie emphasized. “You can see what the last pharmacist who provided input did with a patient’s medications.”

By effectively streamlining paper-based processes, Senti7 has helped drive better collaboration between CGH’s pharmacists, nurses and physicians, reducing harm to patients and lowering the cost of healthcare.

