New Analytics Environment Drives Process Enhancements at Guelph General Hospital

SAVED

time, with streamlined processes with real-time view of hospital activity

ALL

clinical & admin data available for instant analysis

In Ontario, Canada, Guelph General Hospital (GGH) is a medical care facility serving 180,000 residents of Guelph and Wellington counties. Its 1,300 employees provide a full range of services including 24-hour emergency coverage, advanced technology, diagnostic support, and specialty programs such as vascular surgery.

The hospital collects an enormous amount of patient data. When analyzed in aggregate, it has the potential to help departments improve their clinical and administrative procedures. But turning patient data into actionable information isn't always easy.

Challenge

Until recently, GGH struggled to obtain information from a MEDITECH health information management system. It was difficult to retrieve data and hard to understand the static reports. Because data was scattered across many information systems, administrators couldn't achieve a holistic view of each patient's experience, let alone roll up that data to gauge overall performance or use it to monitor hospital activities.

Company leaders at GGH wanted to be able to conduct in-depth analyses of ambulance performance, admitted patients, emergency department visits, urgency levels of admitted patients, and other hospital performance metrics that drive positive patient outcomes. They also needed a solution that could integrate data from multiple information systems throughout the hospital.

Guelph General Hospital

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Solution

GGH used the data integration, business intelligence (BI), and analytics in the ibi™ WebFOCUS® platform to gather and combine data, as well as to measure performance indicators and patient volumes in multiple clinics and departments. Using the ibi WebFOCUS® solutions, the hospital's BI team developed an integrated analytics environment that is accessible through a user-friendly BI portal. Dynamic reports and guided self-service analytics make it easy to identify trends and patterns in the data and help hospital departments manage patient volume and flow.

"Our portal displays a variety of key metrics about hospital performance that we previously had no way to access or analyze," says Doug Mitchell, director of decision support. "Instead of trying to interpret static reports, we can visualize information in dynamic charts and graphs that are easy for users to understand. This has vastly improved our insight into the patient experience."

In addition to the portal, GGH's team built a generic extract, transform, and load (ETL) process that works with all of the hospital's data. Users interface with the warehouse via the WebFOCUS® portal while sub-portals direct them to various types of content. The team can now measure user adoption and evaluate the success of the portal launch.

"The portal is easy to navigate and gives us lots of room for growth," says Mitchell. "Users like being able to visualize data using HTML charts."

WebFOCUS® dashboards include reports on a wide variety of hospital activities. One new dashboard offers a dynamic view of emergency department volumes, which helps GGH better serve people who urgently need care. Another dashboard allows authorized users to drill into data about the hospital's mental health population to identify and respond to urgent needs. The portal presents results from patient satisfaction surveys in a word cloud, providing information about specific departments and activities that could be improved.

"Patient satisfaction information was previously unavailable to the user base," says Mitchell. "By pulling it into our data warehouse and then using the platform to visualize it, we are able to present new information that has never before been shared."

Benefits

Today, virtually all of the hospital's clinical and administrative data is available for instant analysis by authorized personnel. Dozens of clinical directors use the new portal to monitor hospital activities via a real-time dashboard, gathering critical information that helps hospital administrators and department managers determine where to focus their attention each day.

In addition, hospital personnel in IT, information services, HR, informatics, and decision support can access the portal to create their own reports. The portal makes it easy to send status updates to management.

ibi WebFOCUS® provides guided self-service analytics that helps the entire staff serve the patient population. From hospital executives to administrative clerks, everyone has an easier time getting the information they need. "The chief emergency physician can self-direct his explorations of the information and create meaningful interpretations," Mitchell adds.

For example, the platform automates the collection and display of hand hygiene audit information. Previously, this was a very time-consuming and cumbersome effort that entailed using Excel spreadsheets to correlate information each month. Now the data is updated daily on a dashboard, giving the Professional Practice and Quality Assurance teams a better understanding of variations in hand hygiene and the ability to better enforce policies that lead to a healthier hospital environment.

Other WebFOCUS® analytics help clinicians ensure that patients get the right antibiotics, help HR professionals track employee attendance and policy compliance, and provide information about strokes from the hospital's center of excellence for stroke care. The platform lets people explore and manipulate data within interactive PDF files. This is especially valuable for analyzing data from the emergency department, which is subject to the province's performance-based funding initiative.

"Through our efforts with analytics and other initiatives, we are sixth-best in the province, and we are ranked number one for hospitals of our size," Mitchell reveals.

Now that WebFOCUS® has simplified user access to a wide variety of hospital performance metrics, GGH is well-positioned to preserve its leadership role in the future. "Our new analytics environment helps managers in every department save time and streamline processes. It offers virtually every employee the opportunity to gain a better understanding of the organization by providing a real-time view of hospital activities," Mitchell concludes.