



Perinatal software grows up

Vassar Brothers Medical Center –
Centricity Perinatal Case Study



“I really appreciate all the help I’ve gotten from GE over the past 10 years. It’s helped me create a system that fits our needs perfectly. I’ve looked at all the other products out there, but nothing compares to the Centricity Perinatal system.”

Wilhelmina “Cookie” Shaw, R.N.,
Nurse Manager, Vassar Brothers Medical Center

Solution Overview

Profile

Overlooking the Hudson River, Vassar Brothers Medical Center, an affiliate of Health Quest, is a 315-bed, nonprofit hospital with the only Level III Neonatal Intensive Care Unit (NICU) in the Mid-Hudson Valley. Vassar Brothers delivers more babies than any other hospital between Manhattan and Montreal. The hospital also offers the state-of-the-art Heart Institute and Imaging Department, as well as the Dyson Center for Cancer Care. Its Center for Advanced Surgery, which features a completely computerized suite with digital imaging and teleconferencing, is one of the most sophisticated operating rooms in the world.

Information Technology Needs

Wilhelmina “Cookie” Shaw, R.N., came to Vassar Brothers in 1995 to manage the Labor and Delivery Unit. On her first visit, she was surprised to see there was no surveillance system to help nurses monitor labor and delivery rooms down a long hallway, far from the nurses’ station. Shaw identified the unit’s first, most critical need as a reliable system for monitoring and documenting both mothers and babies during labor.

Business Solution

Together with the obstetricians and nurses, Shaw selected GE Healthcare’s QS Perinatal (going to market as Centricity® Perinatal) for its broad capabilities and easy configurability. “We wanted flexibility and room to grow,” Shaw says. And the system has certainly grown! From its initial installation in labor and delivery back in 1995, the Centricity Perinatal system now extends into the outpatient prenatal clinic, NICU, and the neonatal nurseries. Now the hospital’s pediatricians are clamoring to be added to the Centricity experience – and GE will make that easy, too.

Benefits

The Centricity Perinatal system was installed to increase patient safety, improve documentation, and reduce malpractice liability – and it has accomplished them all.

- Centricity Perinatal tools make the doctors’ and nurses’ jobs easier by keeping information in one place and automatically performing dozens of calculations.
- Because patients’ records are in one system from the mother’s first prenatal visit to the baby’s discharge, information is never missing or waiting to be retyped.
- The hospital’s standard of care is built into the system, so nothing is overlooked.
- Online “chalkboards” show the status of every patient, continuously updated and visible from virtually anywhere.
- Automatic archives store all the information needed for future care, liability protection, and quality control.

At the end of the day, when the patients have gone home and it’s time for Shaw to compile reports, all the information she needs is at her fingertips, fully documented, and automatically calculated by the GE system. Patients are safer, physicians and nurses are more efficient and more satisfied, overhead costs are lower, and relevant information is instantly available to anyone who needs it.

Shaw says, “One of the physicians told me, ‘When you first brought the Centricity system in, I hated it. Now I love it!’ “

At every hospital, labor and delivery rooms have a fetal monitoring tape continuously recording each tiny heartbeat. But at Vassar Brothers Medical Center, that fetal monitoring strip is on a computer – along with every drug administration, every blood pressure reading, every nurse’s observation and doctor’s note. That computer system is Centricity Perinatal

from GE Healthcare, and it has raised the standard of care right along with the standard of documentation at this New York hospital.

Vassar Brothers is a testament to all the ways modern technology can improve patient care – improving safety, minimizing invasive procedures, ensuring accurate documentation, and facilitating communication among providers. The hospital has come a long way in less than ten years.

When Cookie Shaw, R.N., first saw the Labor and Delivery Unit in 1995, there was no remote monitoring or online documentation. Her biggest concern was surveillance of patients in labor and their babies. Conditions can change quickly during labor, and the doctors and nurses must be alerted immediately when a fetus is in distress. Shaw knew that one of her first tasks as the new director would be setting up a good system for monitoring and documenting the labor process.

She was also looking further ahead than a simple alarm at the nurses' station. She had the vision of a complete system that would maintain patient records from the first prenatal visit, through NICU to the newborn nursery and beyond. She knew that a good system would help the doctors and nurses provide better, faster, more consistent care and enable the entire group to work more efficiently.

When choosing a system, Shaw looked for one that could both address the Labor and Delivery Unit's immediate needs and accommodate her larger vision. It needed to be easy to learn, quick to implement, and able to connect with other departments and outside providers.

A hard choice made easy

Shaw worked closely with the physicians and other nurses at the hospital to choose a perinatal system that would make monitoring easy, the documentation automatic, and the quality of care consistently high.

The hospital's first criteria were flexibility and an open architecture. "We knew we wanted to configure our own system," Shaw explains. Three or four perinatal systems made it to the short list. As the Vassar Brothers team learned more about the Centricity Perinatal system, it began to stand out for its flexibility and ease of use.

The Centricity system's fetal monitoring strips were easy to compile and annotate, and they automatically created a permanent record. Its forms were easy to customize; the department could define for itself the "normal" range of values for each item in the physical assessment.

Finally, integration with GE's extensive array of diagnostic and monitoring equipment and other software left the hospital lots of flexibility for future expansion.

Beyond the software itself, though, the biggest difference Shaw and her colleagues noted about the Centricity Perinatal software was the expertise of the GE staff.

"The people who sold it really knew the product," says Shaw. "When we asked other vendors certain questions, they couldn't answer. It takes a clinically oriented rep to understand what we need, and GE has that. Their staff knew how to set us up, then how to accommodate our expansion. They've been right on the mark with all their advice."

Stages of growth

Vassar Brothers Medical Center doesn't yet have an enterprise-wide integrated clinical information system. In addition to the usual ADT and financial programs, there are stand-alone information systems in the oncology and lab departments.

The Labor and Delivery unit was the first department to use the Centricity Perinatal system. By late 2004, NICU, the neonatologists, the newborn nursery, and the outpatient clinic had all come on-line with the software. It's a mark of the system's flexibility that the program adapted so easily to so many different settings.

The Centricity Perinatal system was originally installed in 1995, and has been upgraded and expanded a number of times since then. About 160 providers and support staff currently use the system. Each patient room has a workstation, in addition to those in the nurses' stations and mobile units for triage and NICU. Soon, Shaw hopes to add a wireless network using handheld devices or tablet PCs.

The Centricity system's integration with the hospital's administrative systems is one of the features that makes it most valuable. Data never has to be retyped. Information from the ADT system, from the laboratory, from radiology, or from any HL7-based system flows directly into the Centricity patient chart.

Delivering safety

The biggest demands Shaw originally had for the perinatal system were the ability to provide central surveillance of the fetal monitor, complete documentation from labor through the nursery, and 21-year archiving. Because of potential liability relating to subtle brain damage if a fetus suffers oxygen deprivation, the monitoring strips and nurses' annotations are critical. The information has to be stored together, automatically, and permanently.

"We use Centricity Perinatal software for the complete continuum of perinatal care," Shaw explains. "We begin with prenatal documentation in the clinic. That way, when the patient comes for labor and delivery, we already have the

information at hand. Not everyone can do that! We have all the intrapartum documentation, all the way through NICU and the neonatal nursery, in one place.”

Nurses and doctors work in the same system, ensuring that they all see complete and current information. A feature called “Mother/Baby Link” automatically sends information to both charts, so there’s no duplicating documentation. The patient monitors – whether fetal, neonatal, or maternal – are all connected so data is automatically saved in the charts.

Fetal monitoring strips are a key feature of the Centricity Perinatal system. In addition to seeing both the printed strip and a digital version of it, nurses can annotate strips directly in the system. For example, they can mark a medication dose or a rise in blood pressure. The Centricity Perinatal system then automatically compiles all these notes into the nurse’s summary.

With Centricity Perinatal software, Vassar Brothers providers are able to decide what will be considered “normal” values in the patient assessment, instead of being forced to use built-in values. Shaw appreciates the flexibility and added safety of being able to define these fields for her own organization.

“The physicians and nurses here decided together what our normal values would be. We created a physical assessment chart with all the things we look for – fontanel, eyes, GI system, respiratory system – and that helps us make the assessments more quickly,” she says. The Centricity system’s tailorability means that those standards, instead of coming from a textbook, fit the specific needs of Vassar Brothers Medical Center.

“I really appreciate how easy it is to document our patients’ condition in Centricity Perinatal charts. The ability to use normal values helps us get through the documentation quickly.

The customizable standard of care helps prevent potential mistakes, especially with new nurses. For example, after delivery, the mother’s blood pressure and fundus have to be assessed every 15 minutes for 4 hours. The Centricity Perinatal system ensures that those measurements are both taken and recorded properly. Shaw says, “It’s a big safety factor.”

Welcoming the new system

Changing the way people work is always a challenge, and that was true when the Centricity system was first introduced. Shaw made it easier for her staff by asking them to help design how the system would work.

“The nurses helped develop it, so they had buy-in,” she explains. “It’s one of my biggest recommendations to other hospitals: Don’t let the administrators choose your system! The people who will use it must choose it and design how it will work.

“It didn’t take them long at all to learn the Centricity system and use it effectively,” she continues. “And now they won’t go without it. If I take the server down for five minutes of maintenance, they’re banging on the door.”

The biggest advantage, from Shaw’s point of view? “Centricity Perinatal software gave me the ability to create a standard of care, right in the documentation. New nurses sometimes don’t know all the details of what’s expected; the application walks them through and ensures that everything is done correctly. Nurses can’t skip anything.”

And at the end of the day, Shaw appreciates the fact that the Centricity Perinatal system makes her management tasks easier, from creating statistical and financial reports for hospital management to calculating quality assurance data for the state. The Centricity software even makes it easy to compile statistics for physician credentialing.

Shaw reports, “I just finished a query for infection control, for example. If that had to be done by hand, it would be an enormous task. But with the Centricity system, just a couple of clicks and I’m done!”

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