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Neonatal Intensive Care Unit, Valley Medical Center, Renton, WA

Centricity® Perinatal Case Study





Solution overview

The facility

- Largest nonprofit provider between Seattle and Tacoma
- Level 3b Neonatal Intensive Care Unit (NICU)
- 20-bed unit with 12 single rooms
- Overflow licensed to 29 babies

The opportunity

Increase information flow and help improve care across the perinatal continuum.

The GE solution

Implement Centricity Perinatal across L&D, postpartum, newborn nursery, and NICU.

Keys to success

- Relevant information is now available to those who need it, where and when they need it
- When the patient is admitted into the NICU, the information needed to initiate proper care is immediately available when every second counts
- Documentation is faster and more efficient, reducing redundant charting that can lead to errors and discrepancies in patient data
- Documentation is now truly interdisciplinary, as required by JCAHO

Using Centricity Perinatal, Valley Medical Center improves documentation and workflow to enhance care in the NICU.

Valley Medical Center (VMC) in Renton, Washington, is the largest nonprofit provider institution between Seattle and Tacoma, serving over 400,000 residents. Over 4,000 babies are born here every year at VMC's state-of-the-art Birth Center.

Mothers-to-be and newborns who require more advanced care no longer need to travel to Tacoma or downtown Seattle. VMC offers Level 3b Neonatal Intensive Care. The new Neonatal Intensive Care Unit (NICU) provides special monitoring and treatment technology for sick or premature infants, including nitric oxide and high frequency ventilation. Neonatologists and nurse practitioners are available around the clock.

The 20-bed unit includes 12 single rooms so families can room together with their infants.

Defining the continuum of care

Two years ago, very little documentation at VMC was electronic, except Labor/Delivery/Recovery/Postpartum (LDRP), which used Centricity Perinatal. Other units, however, did not readily have access to L&D's electronic information. In the NICU, the existing clinical information system was not designed to work effectively with the NICU population, so documentation among caregivers was fragmented and done mostly on paper.

When leadership decided to take NICU's previous system offline, Suzan Knowles, Manager NICU and Pediatrics, seized the opportunity to help increase information flow and improve care. Having seen Centricity Perinatal at work in LDRP and at a NICU at Evergreen Hospital Medical Center in Kirkland, Washington, she knew it could effectively and efficiently support NICU-specific documentation and workflow. By implementing Centricity Perinatal across all maternal child units including the NICU, she sought to define the perinatal continuum of care, which is so important to a comprehensive perinatal system.

Preparing for implementation

Centricity Perinatal is completely customizable to a unit's workflow, so Knowles understood that careful preparation would be essential to ensuring successful implementation. With the support of hospital leadership and nursing administration, Knowles formed a planning team that included nurses and ancillary staff from all shifts, as well as an IT analyst, clinical educator, neonatologist, and nurse practitioner. A clinical specialist and project manager from GE Healthcare also helped with the project.

The team scheduled regular planning, design, and technical meetings every week for seven months. To understand how NICU workflow could be incorporated into Centricity Perinatal, the team conducted a detailed current workflow analysis, reviewing nursing flow sheets and the care planning tool. An important benefit of this process was the realization that there was significant variability in work process based on the shift worked. The team then determined a single workflow, and all shifts staff were trained to that workflow for consistency of practice.

Before going live, Centricity Perinatal was tested in the NICU using actual patient records. Training occurred in close proximity to Go Live with multiple superusers identified to support the team's success. The superusers were assigned to support Go Live success for a period of two to three weeks without a patient assignment. Their support backed off as the team demonstrated increased competency and confidence with CPN documentation.

Benefits

The extensive preparation paid off. Centricity Perinatal delivers the information needed for timely and appropriate care across LDRP, Mother Baby, and NICU.

Better visibility of patient record. With Centricity Perinatal, relevant information is now available to those who need it, where and when they need it, with one location for documentation of the patient medical record.

"Centricity Perinatal has really helped improve the accuracy of care and our ability to get the required elements of documentation," said Knowles. "Instead of a nursing record, we truly have a patient care record."

Immediate access to vital information. Using Mother-Baby Link, the infant's record is automatically populated with relevant maternal and delivery information as soon as it is created. When the patient is admitted into the NICU, the information needed to initiate proper care is readily available. Because information from caregivers and records in other units is linked directly to the NICU, there's no more tracking down vital information.

And if the infant returns to Newborn Nursery, no information is missed. "Communication is much better among units and caregivers," said Knowles. "The number of incident reports due to miscommunication has decreased."

More efficient documentation. Documentation is faster and more efficient, reducing redundant charting that can lead to errors and discrepancies in patient data. The ease of customizing the system has allowed VMC to design their own content for neonatal care plans to meet their current site-specific practices. Ongoing modifications to the build continue to improve the process of documentation as a result of real-time experience with documentation challenges.

Provider review. A variety of views ensure that only relevant data is presented to a particular user. Data review screens and notes specific to neonatologists and neonatal nurse practitioners help ensure everyone is well apprised of the infant's condition.

"Neonatologists appreciate the timely access that Centricity Perinatal enables for provider data review," says Knowles.

Supports compliance. Documentation is now truly interdisciplinary, as required by JCAHO. Information collected along the continuum of care highlights the need for consults or changes in the patient's care plan. Information is dynamically updated as caregivers help the neonate develop and grow.

The paper-based process made it difficult to update and review the care plan. But with Centricity Perinatal, the fluid flow and seamless sharing of information makes this easy.

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