

# **Case Study**

Willis-Knighton NICU

Improved Neo-Natal Care Using Connexall®

## **About the NICU At Willis-Knighton**

The Neonatal Intensive Care Unit (NICU) at the Willis-Knighton Health System in Shreveport, Louisiana is one of the most modern in the United States, designed with individual rooms to support developmental goals and parent-child bonding. The 42-bed NICU spans 28,000 square feet and is staffed with 72 experienced neonatologists and nurses who have special certification in caring for high-risk infants. The facility provides level one (normal), two (high-dependency), and three (intensive) care. There are no traditional nurse stations and the intensive care unit requires a two to one nurse to baby ratio.

"Monitoring patients in a private room design NICU of this size requires extensive reliance on communication technology and software. Connexall's ability to integrate multiple monitoring systems, staff assignments and map workflow to the communication technology has resulted in significant efficiency gains."

> - Angel Glover Nurse Manager Willis-Knighton Health System

### **Communication Flows In The NICU**

The objective of Willis-Knighton's single-room NICU design is to maximize efficiency by consolidating the delivery of all care procedures in that one room. While the single-room approach reduces costs related to transporting neonates and increases physician and staff efficiency in delivering specialized care, the



closed-off nature of the layout makes monitoring and responding to alarms a challenge.

Because infants in the NICU require constant monitoring and observation, keeping nurses connected to the monitoring devices is crucial. The information system connecting private NICU rooms has to be exhaustive - alarms cannot be missed or misinterpreted, and information must be accurately captured, disseminated and readily accessible.

#### The Connexall Solution

The NICU at Willis-Knighton used Connexall to route all events and notifications from SpaceLabs Clinical Event Interface (CEI), Dräger Ventilators and Incubators, and their Executone

Carecom II Nurse Call System to Vocera Communications Badges carried by each clinician.

The CEI sends data, including vital signs, temperature, blood pressure and oxygen levels, to Connexall, which also receives event information from the Dräger Ventilators and Incubators and the Executone Nurse Call System. Connexall's advanced intelligent routing of alarms ensures appropriate and timely responses by filtering out alarms based on pre-defined categories, escalating notifications automatically when required and allowing for immediate two-way communication at the touch of a button through the Vocera badges.

All event and response data is tracked by the robust reporting feature included with Connexall. This allows Willis-Knighton to generate reports for performance comparison to clinical benchmarks or overall performance metrics.



### **Connexall Results Summary**

- Connexall leverages the existing wireless infrastructure, while enhancing the capabilities of the telemetry and monitoring systems with rules based managed event notification and escalation processes. Connexall maps directly to the NICU's existing workflow, reducing the time it takes to respond to monitor alarms.
- Infant status is tracked 24/7 and reported in real-time, regardless of the location of the assigned caregivers.
- · Overhead paging in the NICU is minimized thereby creating a restful atmosphere for infants, parents and staff.
- · Parents and family members are immediately informed of infant status by designated and authorized staff.
- · Increase of parent and family satisfaction as a result of better care and reduced response times to urgent requests.
- Easy to use icon-driven displays minimize resources required for implementing and training on new technologies.

"After implementing Connexall at Willis-Knighton, we've noted an improvement in our ability to identify and respond more effectively to critical alarm notifications. The reporting capability provides us with a detailed audit trail consisting of alarm delivery, time and acknowledgement of alarm notifications."

> - Angel Glover Nurse Manager Willis-Knighton Health System



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