

Enriching Patient and Family Experiences by Automating Workflow Processes and Communication



CUSTOMER PROFILE

Wake Forest Baptist Medical Center is a nationally recognized academic medical center and health care system in Winston-Salem NC. It is an integrated enterprise that includes educational and research facilities, hospitals, clinics, diagnostic centers, as well as primary and specialty care physician practices that serve 24 counties in northwest North Carolina and southwest Virginia. Wake Forest Baptist operates 1,159 licensed beds, employs over 14,500 people, and operates on an annual budget of more than \$2.9 billion.

SUMMARY

As a premier academic medical center, Wake Forest Baptist is known worldwide for innovation and excellence in the delivery of high quality patient and family-centered care, and has a national reputation for its research activities. That reputation drives Wake Forest Baptist to continually seek new and more efficient ways to provide the ultimate patient experience. With these objectives in mind, Wake Forest Baptist turned to Infinite Leap, a healthcare technology solution and workflow optimization consulting company, to help design and implement their enterprise-wide solution, which has grown to become healthcare's most advanced and extensive use of Real-Time Location Systems (RTLS)

and other real-time technologies. Wake Forest Baptist now leverages the RTLS solution for over 50 use cases, including asset management, staff duress, hand-hygiene, and temperature monitoring, at its 885-bed Winston-Salem campus.

With an RTLS infrastructure and basic use cases in place, Infinite Leap progressed to more advanced use cases, which leverage the real-time location system to understand, in real-time, the physical location of each patient, and monitor each milestone of their care delivery process. Infinite Leap has designed an end-to-end solution, which included a replacement of the previous RTLS software with multiple RTLS-enabled software applications, an expansion of the existing RTLS infrastructure from CenTrak, as well as a deep integration with the Epic EHR system. Wake Forest Baptist has been able to use this solution to remove many manual steps in the patient flow process, allowing staff to spend more time delivering patient care to patients, and patients' loved ones to enjoy more convenient ways to stay up-to-date on the care progress.

CHALLENGES

Based on interviews with Wake Forest Baptist front-line staff and executives, an analysis of patient surveys, and direct observations, Infinite Leap identified that a primary challenge that needed to be addressed was to balance the need to keep patients' loved ones informed while reducing the burden on care teams to manage the time-consuming activities involved in the communication process, such as making phone calls or locating patients' families and friends, when they are ready to brief them on the status or outcome.

SOLUTION

Eliminating activities that were not adding value to the patient experience was a priority goal and the reason that Infinite Leap recommended leveraging the Real-Time Location System to automate the patient flow processes. Now, when patients arrive, registration staff give them RTLS badges to monitor their location in real time. This information is automatically delivered into the EHR system and made immediately visible to the care team, right within the EHR. This new process provides care staff a level of operational visibility not previously available to them, while eliminating a number of manual documentation tasks which in the past introduced opportunity for error, due to delayed and “batch” entry of data.

The dramatic transformation of experience took place when real-time patient status updates were made to be automatically available to patients’ loved ones, by leveraging Notify^{RT} software solution.

By using the innovative approach and the existing RTLS infrastructure, patients’ family and friends at the Medical Center’s Wound Care Clinic and at their Davie Medical Center Surgical Services can now receive updates about the up-to-the-minute status of their loved one's care. This information is available to them in two ways:

- 1) via family view boards
- 2) via cell phone text messages

With aesthetically pleasing, instantly updated, and easy to understand family view boards located in waiting areas and other appropriate areas, family members and friends can see an at-a-glance status of their loved ones. This information is provided in a HIPAA compliant manner, and without a need for staff involvement.

With Notify^{RT}, Wake Forest Baptist is also enhancing the family’s healthcare experience in a whole new way. With this new solution, the patient’s loved ones don’t need to remain

in defined waiting areas. Text messages can be delivered to their personal phones no matter their physical location. Individuals, authorized by a patient, simply provide their cell phone numbers to the registration desk staff. They are then free to visit the cafeteria, use the facilities, take a walk, or de-stress however they wish without worrying about missing an important update. The patient can even add mobile phone numbers to update those who cannot be there in person, eliminating the need for family members to relay the updates themselves. If there's information about their loved one, all the notification recipients receive the updates via text messages. The notifications can be automatically generated based on the patient's movement through the care stages, but staff also have the option of sending customized and personal messages as well.

RESULTS

As a result of process redesign and implementation of new technology solutions, Wake Forest Baptist has been able to accomplish the following results:

- Eliminated by 20% non-value added time spent making multiple phone calls or tracking down people who need to be updated on the patient's progress.
- Provided patients' loved ones with a more convenient way to receive care updates (the opt-in rate for family and friends requesting notifications is over 80%).
- Reduced stress and the number of people in family waiting areas, thereby reducing the need to build or remodel facilities to accommodate the ongoing need for space.
- Automated capture of patient milestones into the EHR system, providing more accurate and timely data.
- Measurably improved patient and patient family satisfaction scores.

As the solution proved to deliver an enriched experience for patients and their loved ones, the Wake Forest Baptist is already planning for the system rollout across other outpatient departments and clinics.

SOLUTION AT-A-GLANCE

Solution Design, Implementation, and Support Services:

Infinite Leap

Products:

OpTime Case Tracking, Epic

Notify^{RT}, Infinite Leap

Integrate^{RT}, Infinite Leap

RTLS Infrastructure, CenTrak