

# PHILIPS

## Success Story

### Northwell Health



Leveraging Philips eICU program, Northwell Health has managed to:

- Extend intensivist-led care beyond the ICU to the entire health system
- Provide the same high level of care, regardless of location
- Allow hospitals beyond Northwell Health to benefit from tele-ICU by partnering with Northwell's eICU team

# From Fragmented to Coordinated Care

How Northwell Health built on its Philips eICU platform to bring the benefits of telehealth throughout the health system

As New York State's largest employer and most expansive health system, Northwell Health has long been a leader in healthcare. Serving two million patients across 22 hospitals and more than 550 outpatient facilities comes with unique challenges, however, and Northwell has increasingly turned to innovative technology in order to improve patient safety and quality. In 2014, Northwell became the first health system in the New York metropolitan area to implement an eICU program, bringing the well-documented clinical benefits of eICU to its patients.

## Launch of the eICU Program

Northwell initially launched its eICU program after Critical Care Medicine (CCM) leaders from around the health system recommended to Northwell senior leadership that all of Northwell have one standard of care for patients in all Intensive Care Units. This included bedside CCM provider staffing standards, required intensivist co-management, and high quality data and outcomes metrics to assess and guide care and uncover areas of deficiency. These internal requirements were also defined to comply with The Leapfrog Group's ICU Physician Staffing (IPS) Standard, which calls for intensivist-led care for all ICU patients.<sup>1</sup>

In addition, the health system was trying to help support sites that were having difficulty with off-hours

coverage due to the nationwide shortage of intensivists.<sup>2</sup> By implementing the eICU, Northwell was able to provide intensivist coverage to help assist off-shift providers such as CCNPs and PAs. It was also able to support intensivists in its tertiary facilities around the clock, triggering a more rapid and thorough response – particularly during busy times – than before.

## Expansion to New Care Venues

What now sets Northwell apart is the sheer breadth of its telehealth offerings. Over the past three years, the health system has built upon its eICU platform to bring telehealth to areas like tele-neurology and telestroke. Northwell's success with these programs is already apparent, as evidenced by an increase in the number of patients receiving the clot-busting drug TPA and a decrease in the door-to-needle time. The system has also instituted a consult-based Neuro CCM eICU program as an adjunct to its core eICU program. This extends its Quaternary Neuro CCM team into the rest of its facilities to assist with complex neuro cases and transfer decisions. Furthermore, Northwell has developed a very specific workflow for organ donation that utilizes the critical care nurses in the eICU to help improve the timeliness of referrals, eliminate missed referrals, and ultimately help increase the number of organ donors and available organs to

1. The Leapfrog Group. (2016). *ICU Physician Staffing Factsheet*. Retrieved from <http://www.leapfroggroup.org/sites/default/files/Files/IPS%20Fact%20Sheet.pdf>.

2. Angus DC, Kelly MA, Schmitz RJ, White A, Popovich J. Current and Projected Workforce Requirements for Care of the Critically Ill and Patients with Pulmonary Disease. *JAMA*. 2000; 284 (21): 2762-2770.



the community. Northwell has also connected the Pediatric CCM team at the Cohen's Children's Medical Center (CCMC) to one of their tertiary hospitals with several more on the drawing board. They have also connected CCMC to their Special Treatment Unit for highly communicable illness patients. Having the eICU operational infrastructure in place was a key first step and allowed Northwell to leverage the program governance and centralized resources to expand telehealth in a disciplined way to other care venues.

Northwell intentionally takes a staged, methodical approach to new programs, relying on pre-implementation data to help make decisions about expansion of the enterprise telehealth program. Success of these new programs depended on extensive planning to ensure that the programs were expanded in the right areas and implemented in an efficient matter. Expansion decisions were based on a number of factors, including an expressed desire of a site to take a team approach to process improvement and standardization of care, as well as a clear quality or efficiency opportunity for the expansion. It was important to only expand into areas where there was both a clearly defined need for services and a willingness to provide the services from another part of the organization.

### **Finding Synergies through One Enterprise Telehealth Platform**

Expansion of telehealth programs is especially important in this era of rapid healthcare merger and acquisition (M&A) activity. Analysis by Kaufman, Hall & Associates found that hospital M&A activity jumped 55% between 2010 and 2016, as hospitals and health

systems look for strategic opportunities to ensure the continued growth and success of their organizations.<sup>3</sup> Northwell is no exception. Over the past several years, it has acquired several new facilities and practices, all of which come with their own electronic health record (EHR) systems and challenges. Many of these acquisitions are smaller community hospitals that seek to establish the same standard of care present throughout the system. "We want to ensure the same level of care, whether it is a rural community hospital or big city hospital. Our patients should be confident that by choosing Northwell, regardless of which location, they are getting the same high level of care," remarks Martin Doerfler, MD, SVP of Clinical Strategy and Development and Associate Chief Medical Officer at Northwell.

In expanding to new sites and care areas, Northwell recognized the importance of being on one enterprise telehealth platform. Having multiple disparate systems leads to a lack of seamless engagement and interoperability, ultimately driving fragmented care and higher costs. The Philips enterprise telehealth platform brought all sites onto a common infrastructure, making fragmented care much more coordinated. It also reduced IT redundancies and simplified the experience of end users.

### **Further Expansion Opportunities**

While Northwell has already made great gains in the expansion of telehealth, its efforts are far from complete. As Northwell's eICU program has matured internally, leadership has recognized the opportunities to expand not only to new sites and departments within the system, but also outside of it. "We see Outreach as important to our work and mission," says Iris Berman, VP of Telehealth Services at Northwell. "We believe that large systems like ours can better afford the needed investments in starting up such programs, and the economies of scale allow sharing of those capabilities with aligned partners that allows for improved quality, efficiency, and market share. We are just beginning that journey, as we looked to develop our program and mature it before pushing it out. As we do, we will offer a menu of services built on the platform." Through Philips' Outreach program, smaller hospitals that might not have the ability to implement an entire enterprise program in-house can partner with larger systems like Northwell in order to have their critical care beds monitored and realize the clinical benefits of an eICU program with modest investment.

