



Jackson Memorial Hospital leverages Enterprise Monitoring as a Service

Rapidly aligns unpredictable patient volumes with performance goals during the COVID-19 pandemic and beyond



Jackson Memorial Hospital

In the battle against COVID-19, Jackson Memorial Hospital (Miami, USA), the flagship hospital of Jackson Health System, leveraged the new Philips business model: Enterprise Monitoring as a Service (EMaaS). At the time the EMaaS agreement was established in 2018, Jackson leadership had confidence that they had chosen a hospital-wide monitoring solution that met their financial, operational and clinical needs. However, neither partner could have imagined how the COVID-19 pandemic would test and prove this innovative model. As a result, Jackson Memorial was able to pivot quickly in reaction to the changes in census and acuity level, so it could meet the needs of both patients and staff.

Proven business model delivers continuous improvement and transformation

Through traditional business models, hospitals purchase physiological monitors and are responsible for the on-going maintenance, operations, security and upgrades across their networks. Under the EMaaS agreement, Philips tracks and reports the actual usage of the monitoring per patient, per acuity, per day for a predictable spend tied directly to the hospital's varying patient volume. This service ensures that the right capability is available where and when it's needed.

Further, Philips provides technical support, helps identify and facilitate clinical workflow optimization, delivers continuing education, and manages all assets and data. Jackson pays for the actual monitoring usage, while Philips provides on-going analysis and guidance for continuous improvement based on the utilization data. This helps to ensure that the hospital's patient volume and performance goals are closely aligned.

Partnership delivers a holistic approach to monitoring

From the beginning, the partnership focused on more than simply providing patient monitoring hardware and software. Before the new monitoring solution was delivered, Philips conducted a holistic assessment that identified areas for improvement, including bottlenecks accessing telemetry devices and beds, manual wave strip documentation, safety processes in the central monitoring unit (CMU), and staff knowledge.

The initial implementation included replacing a mix of monitors from different vendors with Philips monitors throughout the patient care units, streamlining workflow in the CMU, and simplifying the process required to send patient data to the hospital's Cerner EMR.



EMaaS helps Jackson quickly adapt to COVID-19 crisis

When the COVID-19 pandemic hit in early 2020, Jackson staff worked even more efficiently throughout the escalating crisis. A 1500-bed public hospital with a level one trauma center, Jackson Memorial was inundated with COVID-19 patients. Like the rest of the United States, they rode the first wave, then the second, then the third and the fourth. Unable to operate under business-as-usual conditions, they turned to Philips to ensure that their monitoring matched their rapidly changing patient volume and acuity needs.



“COVID-19 required us to be extremely flexible and pivot...to keep COVID-19 patients isolated from other patients, we had to create a universal unit, which included patients who would normally be dispersed among med- surg, telemetry, intermediate, and ICU units. That required us to have monitors with three different acuity levels in one unit.”

Carolyn Carter, Associate Chief Nursing Officer, Jackson Memorial Hospital

Service model approach enables agile response, adapting units to crisis care areas

The EMaaS solution allowed Jackson to change both the number and acuity of monitors without having to obtain internal financial approvals and issue purchase orders, easing the administrative burden of adapting monitoring to the pandemic. Philips assessed utilization rates of the hospital's patient monitors and worked with Jackson Health clinical leaders to add monitoring capability and capacity to address higher acuity levels. With the ability to see at a glance where monitors were and how they were being used via the Philips analytics dashboard, Jackson staff were informed how they could quickly determine which monitors and central stations could be relocated to COVID-19 units without impacting other patients' care.

Interoperable solution facilitates monitoring patients anywhere

All Philips monitors utilize the hospital's existing 802.11 network, which enables staff to move monitors to where they are needed without disrupting the secure connection to the network and the ability to send data, including waveforms, to the Cerner EMR. Mike Garcia, Chief Information Officer, Jackson Health System points out, “If we had decided on a different vendor's solution that had proprietary

wireless connectivity, we would not be able to place monitors in any unit at will. It would have to be solely the units that were wired for that technology. But with Philips IntelliVue monitors, we're not tethering patients to a unit. We are really capable of monitoring these patients from anywhere.”

“Last year, we were building critical care units in any empty crevice we could find,” states Carol Biggs DHSc, Senior Vice President and Chief Nursing Executive, Jackson Health System. “We could call Philips and based on our changing patient volume demands, they had the ability to provide us with the right monitoring in a reasonable timeframe.”

Surveillance monitors meet patient and staff safety needs

When elective surgeries were paused, it freed up additional space for COVID-19 units. These areas had to be converted to negative pressure rooms to minimize exposure of healthy patients and staff to the virus.



"Negative pressure requires you to keep doors closed. But because those units weren't designed for negative pressure, they had solid doors, making it difficult to check on patients," Carter points out. "When we did enter a room, we had to wear protective gear, making it inefficient to enter the room when it wasn't necessary. So, Philips set up large surveillance monitors outside the rooms so that we could remotely observe the patients' vital signs in real-time and determine when we had to enter the rooms to meet patient needs."



Training new staff easier with standard interface and processes

Dr. Biggs adds that the common interface among all monitors and the processes that were standardized before COVID-19 have been particularly helpful because of staff fluctuations caused by staff contracting COVID and job burnout. "Because of COVID-19, a lot of nurses took early retirement, all over America," she says. "Right now, I'm adding 100 staff per month. So, we have a lot of newer staff and having a standard interface and workflows in place that we can train them on has been very helpful."

Future healthcare landscape requires ongoing flexibility

In all, Philips made 25 significant changes in 2020 to help Jackson Memorial adapt to ever-changing patient, staff and organizational needs. With the inability to be onsite during the pandemic, these included adaptations to support, service, education and training. For example, the Philips service team needed to replace in-person clinical professional service team support with online support. Although engineers still entered the hospital for the physical installation, a Philips clinical specialist configured the monitors remotely. And, Philips clinical specialists provided virtual training courses for surgical residents, how-to videos for care givers, and operator education and Go Live support for multiple telemetry units.

When Jackson Memorial was facing its fourth wave of COVID infections Dr. Biggs said, "Now we have to expand our critical care beds again for COVID-19. We are re-opening a critical care unit that we had closed for renovation. We had removed all monitors from that unit and moved them to our new tower. We were able to find the high acuity monitors that we needed here within the hospital, because Philips could look at the data and tell us where we had high acuity monitors that didn't need the high acuity features." More than three years after the partnership was formalized, it continues to support the unpredictability of today's current healthcare environment in ways that simply would not be possible with a traditional monitoring purchase, especially in these multiple crisis situations.