

CASE STUDY

Inventory & Logistics Transformation at a New, Urban Health System Facility

Client

The client health system was building a new hospital tower. The tower, containing an area of over 830,000 square feet, was to include 350 individual patient rooms; 30 operating, cath lab, EP, and IR rooms; four procedural rooms; 65 PAR locations; three sterile storerooms; six loading docks; and a new emergency department. The facility was being built to contain general and subspecialty surgical services, cardiothoracic surgery, neurosurgery, neurology, hematology, bone marrow transplants, and solid organ transplant services. In addition, intensive care and step-down units for cardiology, neuroscience, and surgery as well as several floors devoted to a new children's hospital were part of the plan.

Challenge

As a result of the new building project and a desire to create a high reliability inventory organization through technology, the client partnered with Nexera to support the design and implementation of an advanced, technology-driven logistics (inventory management, receiving, and distribution) model that would address people, process, and technology, and that would provide cutting-edge reporting.

Operational best practices and workflows—from supply requisitioning to daily restocking—had to be created. The storeroom, unit clean supply rooms, and the perioperative and procedural inventory areas had

to be assessed in order to determine which supplies were required, how much of each, and where each would be located in the various supply rooms.

Further, the client planned to design a weight-based inventory management system and an automated robotic distribution model. The health system turned to Nexera for help developing an implementation strategy. Frequent last-minute changes and requests (which are common during this type of large-scale construction and hospital opening) meant that Nexera's team had to be nimble, creative, and quick to accommodate.

Our Solution

Nexera had worked with the organization on an implementation model to drive process standardization and rolled out the process at an existing site two years before the opening of the new tower. Nexera began planning for the new facility a year prior to opening, providing both strategic and tactical support for its inventory and logistics transformation. The Nexera experts employed hands-on project management to develop and manage the client's supply chain stocking and replenishing processes in the new, advanced technology environment. Meetings were set up with various client stakeholders and project managers to ensure that all needs would be addressed. In addition to supply chain, Nexera partnered with the client's IT, facility and real-estate, environmental services,

and clinical teams to further drive implementation and bolster sustainable success. Nexera's logistics and inventory management experts focused on a variety of supply chain issues to further propel organizational planning.

Initially, the Nexera project team was involved in developing an approach to inventory management and fit-out planning, followed by warehouse and clean supply room product selection, and PAR-level development. The team also helped to design perioperative and procedural logistics.

The plan included automated inventory distribution robots. Although advanced technology enables efficiencies, appropriate workflows must be developed to make certain that it is used to its best advantage. The Nexera team created those workflows and supported staff training.

In order to optimize performance, Nexera performed item analyses, executed the physical design and item configuration on the nursing floors and specialty areas, and implemented a process for 5S Lean category analysis. The Nexera experts analyzed a year's worth of item use from existing service line-specific locations to construct a list of items and associated levels that would be needed for the new facility. These were itemized by floor and supply room. This list was used in workshops, which were set up to garner input from clinical staff about their specific item categorization

and classification needs. Nexera was then able to design optimal room layouts based on these categories to make it easiest for clinical staff to find the supplies they were looking for quickly and efficiently.

In addition to project consultants, Nexera provided supplemental staff with relevant expertise to improve installation efficiencies in order to meet deadlines. The proactive management taken by the Nexera team helped the client overcome the myriad challenges to opening the facility on schedule. Essential prerequisites were finished on time thanks to project trackers and metric-driven project management, while various schedules (construction and otherwise) were rearranged to avoid any negative impact on critical path tasks.

Results

The client's partnership with Nexera enabled them to successfully open their new facility on time and move patients in without any glitches. The weight-based inventory management system was fully operational and all supply locations were fully stocked at the time of opening. Automated robots now deliver daily supplies. Currently, more than 17,000 items are being managed by the weight-based system, and over 1,500 orders are placed a month. Without the dedicated support and commitment of the Nexera team (both the standard team and additional support for evenings and weekends), the hospital would not have had the supplies it required for opening day.