



How Massachusetts General Hospital improved capacity, flexibility, and security with XT Automated Dispensing Cabinets

Customer Profile

The No. 2-ranked hospital in the country by U.S. News & World Report, Massachusetts General Hospital has 1,035 beds, a Level I trauma center, and patients who seek care from across the globe. It's the largest teaching hospital of Harvard Medical School and houses the most robust hospital-based research program in the U.S.



Massachusetts General Hospital (Boston, MA)

The Challenge

A longtime customer, Mass General had been successfully using Omnicell's G4 Automated Dispensing Cabinets for nearly a decade, dispensing 80% of its medication doses via 260 cabinets. But with many of those cabinets nearing capacity—and the end of their lifespan—the hospital wanted a new solution. The team's needs: greater capacity, flexibility, and medication security.

6.6
million

doses a year from
Omniceil cabinets

20–30
minutes

cabinet swap time
after preparation

The Solution

The hospital upgraded to Omnicell® XT Automated Dispensing Cabinets. Soon after the XT cabinets were installed, nursing and pharmacy began realizing greater efficiency and other benefits from the new features, including:

- Larger capacity prevents stockouts
- Greater flexibility helps optimize cabinet inventory levels
- Real-time use data updates can be sent to the cloud
- Metal locking lid drawers enhance security
- Reliability supports uninterrupted patient care

Because XT cabinets can provide near real-time data to the cloud, the team also plans to take advantage of the Omnicell One™ intelligence solution. Omnicell One is a cloud-based technology-enabled service that provides medication visibility, insights, and workflow recommendations to optimize par levels, reduce risk of expiring medications, and help manage medication inventory levels and value.

Boosting Capacity Adds Peace of Mind

At Mass General, getting medications from the Central Pharmacy to patient units in seven different buildings involves a lot of walking—and elevators.

“Our hospital is so big, it takes us a while to get from our pharmacy to even the closest floors, and the elevators are slow,” explained Benjamin Pennell, PharmD, MS, BCPS, Manager of Central Pharmacy Operations. “That’s why we rely so heavily on our Omnicell cabinets. We try to maximize the meds in our cabinets so nurses have what they need close by.”

Maximizing space was one of the reasons why, in 2019, the hospital upgraded to Omnicell’s XT Automated Dispensing Cabinets. Not only does the greater capacity allow for storing more items to prevent stockouts, but XT cabinets also accommodate larger items. This capability enables the team to take greater advantage of its 503B partnership and store more compounded medications with longer beyond-use dates (BUDs).

Nurses have welcomed the XT’s smooth operation, brighter Guiding Light technology, and simpler cabinet organization. With the XT’s wide range of drawer and bin sizes, a drug can now be stored in a single large bin, instead of across several small bins.

“This makes it much easier for nurses to locate medications, and there’s no confusion about whether an item has stocked out,” said Ezekiel Ndungu, CPhT, Automation Technician.

Security and Reliability for a Better Night’s Sleep

The XT cabinets feature all metal locked and lidded drawers, enhancing medication security and allowing the team the flexibility to store a variety of controlled substances. At Mass General, all controlled substances must be in locked bins.

But for Pennell, XT has another benefit: peace of mind. “We needed a machine we could count on, with 99.99% uptime.”

“We’ve been live now for almost a year, and the XT cabinets have worked really well; they’ve been very reliable. That helps me sleep at night.”

—Benjamin Pennell, PharmD, MS, BCPS
Manager of Central Pharmacy Operations

Transition Tips

- Communicate with Nursing throughout process
 - Rethink how cabinets are organized
 - Swap cabinets at 6 a.m. to minimize nursing impact
 - Quickly assign items to cabinets with Omnicell’s Medication Assignment Tool
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Learn more about the Omnicell XT Automated Dispensing Cabinets at omnicell.com/XT.