



EXECUTIVE BRIEFING

Unlock Clinical & Operational Performance

Making Medication Management Work Better
for the People Delivering Care



Almost every medication passes through a chain of people, processes and technologies before it reaches a patient. Pharmacy teams manage supply, inventory, dispensing and distribution. Nurses retrieve, administer and document medications throughout the day. Behind them sit the systems, information and operational decisions that keep medication moving across the organization.

When that environment works well, much of it is invisible. Medications are available where they are needed. Clinicians can find what they need without unnecessary searching or additional steps. Pharmacy teams have the information to manage inventory effectively. Technology supports the work rather than adding another layer to it. When it doesn't, small points of friction can become part of everyday work.

For large health systems, that often makes medication management more than a pharmacy or technology issue. It is part of the working environment for clinicians and an opportunity to support safer, more consistent and more effective care.

Technology
creates the most
value when it
adapts to the way
care is delivered.

Start with the Work

Medication management is a system, not a sequence of isolated technology interactions. WHO's *Medication Without Harm* initiative makes that point clearly. Medication-related harm can arise at different stages of the medication-use process, including prescribing, dispensing, administration and monitoring.

WHO identifies both weak medication systems and human factors, including fatigue, environmental conditions and staffing pressures, among the factors that can contribute to medication errors.

That system view is crucial, because technology works within the clinical environment. Its value depends not simply on whether it performs a function, but on how well it supports the people and processes around it.

For medication management, that means asking practical questions:

- Are medications available where clinicians expect them to be?
- How many steps are required to retrieve and administer them?
- How often do nurses or pharmacy staff need to leave the expected workflow to resolve an issue?
- Can clinicians move easily between the systems they need?
- Can pharmacy teams see enough of the medication environment to manage inventory effectively?
- Where is skilled time being absorbed by work that could be simplified?

These are small questions if viewed individually. Across thousands of medication interactions, they become questions about how well the system supports care.

Remove Redundancy in Workflows

For clinicians already working under pressure, productivity can't simply mean doing more tasks, it should mean looking for what unnecessary work can be removed.

A medication stored somewhere other than where it is needed can create another search, call or request. Moving between disconnected systems can add steps to a routine task. Inventory information that does not reflect actual utilization can create additional replenishment work for pharmacy and additional medication requests from nursing.

Research into automated dispensing cabinets provides one example. A 2024 time-and-motion study found that after ADC implementation, the average number of locations nurses visited to obtain medications fell significantly from 1.73 to 1.04. In one surgical ward, medication retrieval time fell from 98.1 seconds to 47.2 seconds. The reduction in retrieval time across all four specialties studied was not statistically significant.

The lesson is not that an ADC automatically creates nursing capacity. It is simpler than that: better workflow design can reduce the effort required to complete routine medication tasks.

Individually, these moments can seem minor but repeated throughout a day and across many care environments, they may make clinicians' work needlessly harder.

What this can look like in practice

At Billings Clinic, nurses previously moved between the electronic health record and automated dispensing system to review clinical information and retrieve medications. Integration between the Cerner EHR and Omnicell ADC environment allowed medications to be queued remotely from within the EHR for later retrieval at the cabinet, removing the need to work across two separate systems for that part of the process.

It is a practical example of an important principle: better workflow can be orchestrated by making the technology fit clinical practice more naturally, not by requiring clinicians to change how they work.



Make Medication Availability Part of the Care Experience

Medication availability is an inventory issue and a clinician-experience issue. When the medication a nurse needs is not where it is expected to be, someone has to resolve the problem. That may mean searching another location, contacting pharmacy, submitting a medication request or waiting for replenishment. Pharmacy, in turn, may need to investigate the request, locate inventory and move medication to where it is needed. Better inventory management can help reduce some of that avoidable work.

A pharmacist-led ADC stewardship study at a tertiary academic medical center reported a 12% reduction in medications dispensed from central pharmacy, a decline in stockouts per cabinet per day from 0.75 to 0.61 and a 15% reduction in inventory-at-par cost following optimization.

The important distinction is between deploying automation and actively optimizing the environment around it.

Technology provides capability, but data, pharmacy expertise and ongoing management often determine how effectively the capability introduced by the technology is used.

From inventory data to fewer interruptions

North Kansas City Hospital offers a useful example. The hospital already used Omnicell medication management automation but identified manual inventory processes, stockouts and medication requests as sources of operational friction.

After introducing cloud-based inventory analytics and optimization support, the hospital reported a decrease of approximately 1,200 fewer medication requests over four months, roughly 10% fewer stockouts and a 7% increase in nursing satisfaction.

The significance isn't a single metric but the connection between inventory decisions and the daily experience of pharmacy and nursing teams.

Give Pharmacy Better Visibility Across the System

In a large health system, medication inventory is typically spread across hospitals, pharmacies, cabinets and other care environments. Without sufficient visibility, teams can end up managing individual locations rather than seeing the medication environment as a whole.

- Where is inventory being used?
- Where are stockouts occurring? Where is medication sitting unused?
- Where do par levels no longer reflect demand?
- Are different locations solving the same problem in different ways?

ASHP's PAI 2030 recommendations call for pharmacy leaders to develop and apply advanced analytics to areas including performance monitoring, medication-use optimization and business management. ASHP also recommends access to analytics resources that can collect, aggregate, measure, visualize and disseminate information about pharmacy's clinical and financial performance.

For a multi-site health system, that creates a potential opportunity to move from local information toward a more connected view of performance, while still allowing individual care environments to respond to genuine local needs.



Visibility has the ability to change the questions pharmacy teams can ask.

Data can make important patterns visible.

Seeing across locations can change how inventory is managed

Saint Luke's Health System provides one multi-site example. Its medication inventory was managed across 16 hospitals and campuses, with departments working in silos and limited visibility into stock across the system.

Following implementation of Omnicell Intelligence Solutions, the health system reduced drug inventory by 12% systemwide and reduced drug waste by approximately \$20,000 per month.

The broader lesson is not the financial figure on its own, it's that shared visibility can give pharmacy teams a better basis for deciding what inventory is needed, where it is needed and where practices can be improved.

Create Consistency Where It Helps People

A large health system cannot operate as though every hospital and every care environment is identical. Patient populations, clinical specialties and local circumstances all differ. However, not every difference is clinically meaningful enough to avoid consistency in specific operating practices.

Variation in cabinet configuration, inventory practices, reporting, training or routine workflows can make the environment harder to navigate and support. For clinicians who work across locations, unnecessary variation can also mean relearning routine tasks. So, the aim isn't necessarily uniformity but consistency that is measurably useful.

Common principles, technology and operating practices can make medication management easier to understand, support and improve across the organization. Local flexibility can remain where there is a genuine clinical or operational reason for it.

ASHP's PAI 2030 recommendations support this broader view of pharmacy practice, including interoperable technology, financial stewardship, enterprise-level medication-use leadership and risk management across care settings.

Standardize what makes the work easier, and preserve flexibility where care requires it.



Measure Whether the Work Got Better

Technology programs frequently have obvious milestones: systems are installed, integrations completed, users trained and facilities converted. Milestones tell leaders that implementation happened, but they do not necessarily tell them whether the work improved.

A performance-oriented approach asks what changed afterward. Depending on the organization's priorities, that might include:

- Medication availability and stockouts
- Medication requests
- Inventory levels and utilization
- Replenishment activity
- Workflow steps and exceptions
- User experience
- Variation across locations
- The ability to identify and extend successful practices

Not every measure needs to become an enterprise KPI. We believe what matters is having enough visibility to understand whether modernization is making medication management easier to operate and better able to support care.

Implementation tells you that the technology changed but measurement can tell you whether the work did.

A baseline shows where the organization started. Measurement shows what changed. Continued measurement shows whether the improvement lasted.

Performance That Supports Care

We believe better medication management is ultimately about making the work of delivering care easier to manage and improve.

That means:

- Medications being available where they are needed
- Removing unnecessary steps from routine workflows
- Giving pharmacy teams better information
- Creating consistency where it helps
- Preserving flexibility where care requires it

Technology has an important role to play, but its value comes from how well it supports that wider environment.

Omnicell's evolving platform strategy brings together point-of-care automation, inventory capabilities, software, data and services with the aim of supporting a more connected medication-management environment.

The measure of medication-management modernization is whether the work of delivering care gets better.



Questions Worth Discussing

- Where does medication management create unnecessary work for pharmacy or nursing today?
- Where does medication availability interrupt the expected care workflow?
- Which differences between locations genuinely support local care, and which simply add complexity?
- Do pharmacy and operational leaders have enough visibility to understand where performance differs and why?
- How will the organization know whether modernization has made the work better?

Contact your Omnicell representative to discuss how you can create an enterprise medication management operating model for your organization.

About Omnicell

Omnicell helps health systems to create more connected medication management environments through enterprise visibility, interoperable cloud technology, standardized workflows, and operational intelligence.