BoxPicker — Automated pharmacy storage system

BoxPicker is part of an integrated end-to-end solution, consisting of hardware and software, that manages to store, monitor, and optimize the inventory of all forms of medication within the hospital.

swisslog healthcare

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BoxPicker controls and manages medication from wholesaler to patient. The system provides pharmacies with secure, high-density storage of medications—controlling access, improving pharmacy workflow efficiency, and expediting the picking process.
This high-performance system significantly minimizes the need for static shelving and is a robotic alternative for vertical carousels and refrigerated drug storage.

BoxPicker fully automates medication storage and retrieval, which not only eliminates picking errors and increases safety at dispense but also creates a more efficient pharmacy workflow, allowing the pharmacy staff to focus on revenue-generating tasks and spend less time locating, picking, and verifying medications.

« The security of a single dispensing and loading point provides peace of mind regarding access and accountability.»[1]

SOURCE

1 — Dave Webster, RPh, MSBA. Associate Director Pharmacy Operations, University of Rochester Medical Center

Advantages

— Robot-assisted storage
— Modular design
— Transparent traceability

Robot-assisted storage

— All items are brought to a single operator station for retrieval and verification.

— Picks the next order ahead of the user for enhanced picking productivity.

— Multiple operator stations allow for simultaneous operations, improving efficiency.

— Users have no exposure to internal moving parts, increasing safety.

Modular design

— Allows for easy expansion options as pharmacy needs change and grow.

— Versatile configuration options allow for an improved return on investment.

Transparent traceability

— Restricted access as well as scan-in and scan-out technology decrease errors.

— Password-protected operator access ensures inventory control and audit capabilities.

« […] The BoxPicker has allowed our storeroom staff to focus more on critical service issues and improve our efficiencies around managing stock.»[1]

SOURCE

1— Dave Webster, RPh, MSBA. Associate Director Pharmacy Operations, University of Rochester Medical Center

Functionalities

1 **Controlled access**

Access one single box at a time to eliminate picking errors.

2 **Barcode verification**

Scan in and scan out technology increases safety at dispense.

3 **Configurable workstation**

Workstations can be used simultaneously on both sides.

4 **User verification**

Password protection ensures inventory control and audit capabilities.

+ **Emergency support**

The inventory is fully accessible in the event of a power failure.

+ **Modular design**

Storage of articles with similar or dissimilar temperature requirements is possible.

Individual configuration

Every pharmacy has different demands. BoxPicker can be configured from a minimum of three modules, including the possibility to have several work stations and modules for different temperature requirements.

Modules

Full modules accommodate boxes for standard-sized items and four high-capacity drawers for larger items.

Workstation modules combine a computer, barcode scanner, label printer and four access drawers for loading and unloading.

The following options are available for configuration.

Operator stations
Supports additional operator stations for simultaneous system access on the same or opposite side of BoxPicker.

Ambient modules
Store unit doses and bulk medications that do not require special handling or temperature control.

Dual-temperature modules
Eliminate the need for separate pharmacy refrigerators by storing temperature-sensitive items in a refrigerated half-module.

Fully-refrigerated module
Replace standard pharmacy refrigerators to streamline workflows and improve inventory control for all of your refrigerated medications.

Workflows

BoxPicker has been designed to eliminate the need to store medications manually. It allows pharmacists to focus on clinical tasks and spend less time locating, picking, and verifying medications.

Loading

1 · A technician logs into the BoxPicker operator station and selects the «Load» option.

2 · A technician scans the medication to be loaded and enters the quantity and expiration date.

3 · BoxPicker retrieves the appropriate medication box based on space availability and delivers the box to an access drawer at the operator station.

4 · Once the box has been delivered, the technician opens the access drawer, scans the medication to be loaded and places it in the assigned location.
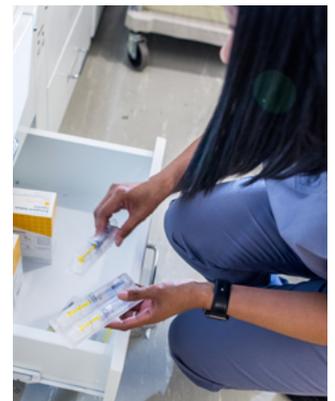
Dispensing

1 · A technician logs into the operator station and selects an order received through an interface with the hospital's information system and/or ADC[1] vendor.

2 · BoxPicker picks only the correct medication box and places it in a drawer at the operator's station.

3 · Once the box has arrived, a green light indicates the drawer is unlocked and can be opened.

4 · A technician then picks the correct medication from the box and scans the product barcode for verification.

5 · Once the medication has been scanned and confirmed, the inventory quantity is updated in the system.

6 · While the technician scans one product out, BoxPicker is already retrieving the next medication box to be dispensed.

SOURCE

1   — Automated Dispensing Cabinet