

# Considerations for Inventory Management to Improve Access to Critical Medications

Managing medication inventory may look different between agencies, depending on the unique jurisdictional context. Health agency programs may work with their healthcare coalitions to talk through considerations in the following topic areas.

## Ordering

- **Demand forecasting** uses historical data and disease trends to predict demand for medication, which can inform desired inventory levels.
- **Centralized ordering** can streamline processes and help avoid duplicate orders. This may also support **bulk ordering**, which can help secure a better price. Ordering options to reduce costs may include group purchasing organizations or leveraging purchasing power.
- **Dosage and package size** may vary for a specific medication, along with the associated costs. Consider purchasing medications with cost-effective dosage and package sizes.
- **Other opportunities for containing medication cost** include assessing the drug for off-label or ad hoc use, or identifying programs through pharmaceutical manufacturers that support care for indigent patients for select drugs.

## Storage and Handling

- **Storage conditions** may be specified by the manufacturer. Be familiar with recommended temperature ranges, restrictions from light exposure, and other requirements to safely store the medication.
- **Separation** of some medications may be required if the drug names sound similar or if the medications look alike to prevent errors. Hazardous drugs may also need to be separated, and controlled substances may need additional securities in place to prevent unintended use.
- **Disposal** of medications should be done through mechanisms that minimize the impact on the environment. Some medications are considered hazardous waste, and may have specific instructions for disposal.

## Administration and Tracking

- **Patient-specific labeling** may help prevent administration errors, and can be a requirement if the medication is obtained through certain programs.
- **Reconciliation** of inventory as new patients are identified or if there are missed doses can help ensure accurate inventory.

## Inventory Control

- **Regular audits** that check the expected inventory against the actual inventory can help identify discrepancies and ensure stock levels are accurate.

- **Automated systems** that track inventory electronically may help reduce errors from manual entry and support medication tracking in real time. This may include incorporating barcodes or other digital-friendly methods to support tracking.
- **First-in, first-out**, otherwise known as FIFO, is a principle that ensures older stock is used first, reducing the chance of medications expiring on the shelf.
- **Par levels** are minimum and maximum inventory levels for each medication that identify the ideal stock level. There may be certain amounts that trigger ordering to ensure the inventory.
- **Monitoring expiration dates** helps ensure expired medications are not in the inventory. As medications age, their potency may change.

## Staff Training and Compliance

- **Regular training** on medication management and documentation practices can ensure adherence to standards. Additionally, staff should be aware of and adhere to regulatory requirements for medication storage, handling, and disposal.
- **Reporting** medication errors and near misses helps improve processes and prevent in

## Continuous Improvement

- **Quality improvement programs** regularly assess and improve medication management practices. Assessments that gather feedback from staff can support process adjustments.

## Resources

- EPA. [Management of Hazardous Waste Pharmaceuticals](#)
- FDA. [Expiration Dating and Stability Testing for Human Drug Products](#)
- The Joint Commission. [Medication Management and Safety](#)
- US Pharmacopeia. [Drug Storage and Shipping Practices](#)
- WHO. [AWaRe Classification of Antibiotics for Evaluation and Monitoring of Use, 2023](#)
- WHO. [Good Storage Practices for Pharmaceuticals](#)
- US Pharmacopeia. [Drug Storage and Shipping Practices](#)