

Technology Logistics:

A Guide from the Medication Optimization Technology Toolkit

Description

A guide for determining key technology logistics (handling) requirements, including considerations for technology logistics responsibilities, storage and inventory, delivery methods, and technology retrieval and refurbishment.

Audience

For organizations that want to design and implement programs using patient-centered technologies that support medication adherence and monitoring and need to consider their technology logistics options and policies.

Helpful Tips

This guide is relevant to medication optimization programs that involve hardware devices, such as automated medication dispensers.

1 Technology Logistics Responsibilities

Who will be responsible for technology logistics, i.e., our organization or the vendor?

2 Storage and Inventory

How will we store and inventory the devices and peripherals?

3 Delivery Methods

How will we ship and receive the technologies?

4 Technology Retrieval and Refurbishment

How will we retrieve and refurbish the technologies once patients discontinue use?

1 Technology Logistics Responsibilities

Organizations should decide early in the medication optimization technology selection process whether they want to take full responsibility for technology logistics or delegate this responsibility to the technology vendor.

Organizations that have undertaken technology logistics for devices that support medication adherence and monitoring advise that it is important to not underestimate the time that may be required to properly handle device storage, inventory, shipping and order fulfillment, as well as the time it takes to refurbish and test devices before they may be reused by other patients (e.g., some automated medication dispensers are refurbished and reused).

2 Storage and Inventory

Key requirements or tasks that may be included in an organization's storage and inventory policy related to medication adherence and monitoring technologies follow.

Create a technology inventory forecast based on patient enrollment goals and trends. When relevant, include cables, extension cords, batteries, and other ancillary or peripheral devices in the forecast. Inventory typically consists of both new and refurbished devices. The expected number of retrieved devices should be factored into the forecast.

Store the devices in a secured, locked room away from patients and unauthorized staff.

Establish a tracking system for all devices. Log incoming and outgoing devices and peripherals.

Store devices in individually sealed boxes. Items that are typically included in each box are ancillary items, such as cables, a set up guide, user information, and any other patient or required information.

3 Delivery Methods

Key requirements or tasks that may be included in an organization's shipping and delivery policy related to medication adherence and monitoring technologies follow.

Each device and peripherals should be delivered in its own sealed box.

Methods of delivery may include one or more of the following.

In-person pick-up, which is appropriate when a patient receives the device after a clinic visit.

Mail to patient home.

In-person delivery, which is appropriate when a designated staff member or third party installer delivers and installs the equipment in the patient's home

Establish service level goals, such as a maximum number of days between the date when equipment is ordered to the date it is delivered.

Document all delivery methods in a client record and inventory log.

4 Technology Retrieval and Refurbishment

Key requirements or tasks that may be included in an organization's retrieval policy and procedures related to medication adherence and monitoring technologies follow.

When a patient graduates or is discharged from the program, the medication adherence and monitoring device and any other equipment will need to be retrieved from the patient's home.

Retrieval can take place through an in-person visit or by sending a retrieval box and label to a patient's home for shipping back to a designated equipment return site.

The retrieval process and policy should also be used for any medication optimization equipment that needs to be replaced due to malfunctioning.

All equipment returned should be handled in accordance with organizational policy or vendor refurbishment and infection control guidance.

Document all equipment received in both the patient record and the inventory log.

4 Technology Retrieval and Refurbishment (cont.)

Key requirements or tasks that may be included in an organization's refurbishment policy and procedures follow.

Document all equipment refurbished in inventory log.

Check with the vendor of medication adherence and monitoring devices/ peripherals equipment regarding cleaning and refurbishment requirements or guidance.

When refurbishing and handling used medication adherence and monitoring devices, a number of safety precautions must be heeded. For example:

- Ensure that your work area is well ventilated.
- Unplug the appliance before you begin.
- Follow the guidelines for hand-washing, the use of protective attire, and other guidelines recommended by Standards and Recommended Practice, e.g., "Safe Handling and Biological Decontamination of Reusable Medical Devices in Health Care Facilities and in Nonclinical Settings," ANSI/AAMI ST35:2003.
- Follow all applicable OSHA regulations.
- Follow all instructions and safety precautions on cleaning product labels.
- Wear protective equipment (such as gloves, goggles, lab coat).

All equipment will require inspection for any damage or needed maintenance.