Cheatography

Battery-Powered Mobile Medical Cart Problems Cheat Sheet

by [deleted] via cheatography.com/2754/cs/10841/

Introduction

The FDA regulates medical carts under section 201(h) of the Federal Food, Drug and Cosmetic Act. In some cases, the battery-powered cart itself has a therapeutic function (e.g., medication dispensing carts). In other cases, the cart can function as an accessory to medical devices, such as colonoscopes, ultrasound machines, and anesthesia machines.

FDA has received medical device reports of hospital fires and other health hazards associated with batteries used in mobile medical carts and their chargers. These events, which range from smoke production and overheating to equipment fires and explosion, can occur with lithium, lead acid, and other types of batteries. Such hazards may result in equipment and facility damage, hospital evacuation or patient and staff injury.

In addition, lithium battery fires are very difficult to extinguish. In several reports, firefighters had to bury mobile medical cart batteries to extinguish a fire.

FDA Recommendations Preventive Maintenance

- Inspect batteries for signs of damage, including bulging, swelling, or cracks.
- Notify the manufacturer of damaged batteries.
- Inspect battery chargers and carts containing chargers for overheating components.
- Vacuum to remove dust and lint around battery chargers and carts containing chargers.
- Do not use batteries that do not charge properly. Ensure that batteries are replaced at the manufacturer recommended replacement intervals.
- Conduct a survey of battery charger locations, and verify that all chargers are located in easily visible, fire retardant locations away from patient care areas and open sources of oxygen.
- Do not install chargers or charging carts in confined spaces.
- Keep flammable and explosive objects away from battery chargers and charging carts.
- Request preventative maintenance documentation from the cart manufacturer for the health care facility to use.

If a fire occurs

If a battery in a mobile medical cart catches fire:

- Immediately report the fire according to your hospital protocol. Follow hospital protocol for addressing a Class C electrical fire disclaimer icon.
- Do not touch the battery.
- Unplug the charger or power off the cart if it is safe to do so.
- Remove the cart from patient and visitor areas, as safely as possible.

FDA Warning

General Recommendations

- Do not block any charging station vents.
- Do not tape or attach any object or material to a battery charger.
- Only operate and store the battery charger and cart with charger outside of patient rooms and in non-patient care areas.
- Contact the manufacturer if there is a problem with any component of this system. This alerts the manufacturer of a potential product concern.
- Request maintenance and user manuals for the carts, chargers, batteries, and all accessories.
- Before purchasing these carts, establish the necessary criteria, that meets your facility needs:
  - Meets battery standards for use in a hospital environment
  - Preventative and maintenance documents to be supplied to facilities
  - Contact manufacturer support with all questions

Reporting Problems to the FDA

Prompt reporting of adverse events can help the FDA identify and better understand the risks associated with medical devices. If you experience adverse events we encourage you to file a voluntary report through MedWatch, the FDA Safety Information and Adverse Event Reporting program. Provide the following information:

- How was the cart or battery charger being used at the time of the event
- Any patient, staff, or visitor injuries and or any actions taken by the facility
- What type of event occurred, i.e., explosion, fire, smoke
- Any cart identifiers, i.e., manufacturer name, model number
- Any action taken by the cart system manufacturer and your facility.

By **[deleted]**
cheatography.com/deleted-2754/

Published 12th February, 2017.
Last updated 12th February, 2017.

Sponsored by **Readable.com**
Measure your website readability!
https://readable.com