

# Environment, health, and safety

## Battery recycling: Nursing's role

By Joan D. Plisko, PhD, and Denise Choinière, BSN, RN

Batteries are ubiquitous in the hospital environment. Think of all the battery-run equipment we use: beepers, cell phones, heart monitors, pacemakers, defibrillators, infusion pumps, blood analyzers, laptop computers, thermometers, digital cameras, and more. Consider the impact of 97,000 batteries being purchased, used, and disposed of by just one large hospital. With more than 5,000 hospitals in the United States, the number of batteries used and discarded amounts to more than 4 million.

This is a concern because batteries commonly contain heavy metals, such as nickel, cadmium, mercury, and lead, which can pose risks to human health and the environment unless stored, managed, and disposed of properly. Many hospitals currently dispose of batteries with the regular trash.

The first step in developing a battery recycling program is to form a team of hospital staff that includes representatives from purchasing, environmental health and safety, facilities management, housekeeping, administration, risk management, nursing, and clinicians. The team should develop goals and outcomes that reduce the hospital's environmental impact, educate staff, minimize cost, and stay in regulatory compliance. Special attention should be given to battery purchasing, use, and disposal practices. The team can create a positive image of hospital employees, publicize the activities in the press, and become environmental hospital leaders. (See *How to get the program going*.)

An important step in developing an effective battery recycling program is to find out how many batteries your hospital uses. The materials management and purchasing departments can provide a list by department of which type and how many batteries the hospital buys.

Using this purchasing data, the team's next step is to analyze the information to determine which units use the most batteries and which use the most toxic batteries containing heavy metals. Departments that frequently use such batteries include biomedical engineering, clinical engineering, and cardiac care. To determine the hazardous potential of a specific battery, check the material safety data sheet, contact the manufacturer, or contact Hospitals for a Healthy Environment at [www.h2e-online.org](http://www.h2e-online.org).

The recycling team should develop guidelines that outline the types of batteries the hospital will recycle,

## How to get the program going

The following guidelines can help jump-start your facility's battery recycling program.

### Know the facts

- What's your hospital's policy on battery disposal?
- Where do batteries go when discarded?

### Get involved

- Meet with your facility's safety, risk management, and purchasing departments.
- Start a battery recycling committee.
- Pilot the recycling program in your unit.

### Share the story

- Publicize the program to committees you participate in.
- Write an article about it for your hospital newsletter.

location of collection units, and an education training plan. Initiate a pilot program focusing on the most toxic batteries and high-volume units. Results of the pilot program will point to the needed modifications before hospital-wide implementation.

Often, a facility's hazardous waste vendor makes an agreement with the hospital to remove batteries. There are also specialty vendors that recycle batteries for free, such as the Rechargeable Battery Recycling Corporation. The important point is to find out where and how batteries are processed into component materials.

Nurses can drive a well-thought out educational campaign using posters and the hospital's website and newsletter, making information available in lunchrooms, elevators, and employee orientation material. A successful education effort tells a compelling story that prompts the staff to recycle. Consider making compliance with hospital waste management policies a part of every job description.

To determine program success, the team should develop metrics to assess the pounds of batteries recycled, the number of batteries recycled, the capture rate based on purchasing habits, or the number of batteries still disposed of improperly. Initiating a battery recycling program can be a valuable step toward making your facility more environmentally sustainable. ★

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