

# SUSTAINABILITY AND COMPLIANCE

## Two Cornerstones of Successful Healthcare Waste Stream Management

By Debra Gillmeister, MBA

**H**ealthcare facilities can generate up to 25 pounds of waste per day per patient.<sup>1</sup> Hospital leaders recognize the large amount of waste is a consequence of operating around the clock. Priorities are shifting to achieve a balance of sustainability and compliance that pushes environmental boundaries with commitments to improving air and water quality.

Many regulatory standards for properly managing waste were set in motion beginning in 1976 followed by RCRA, and then the Clean Water Act, the Safe Drug Disposal Act, and the Hospital Medical Infectious Waste Incinerator Rule, to name a few. Yet the average number of regulatory compliance issues (The Joint Commission, OSHA, EPA, and/or Department of Transportation) uncovered during a typical hospital compliance review is 23.<sup>2</sup>

To AHE members at the EXCHANGE 2012 conference, Laurie Leon, director of materials management at Boca Raton

Regional Hospital, highlighted that 90 percent of hospitals could not readily pull together cost and weight data for their waste streams. This reality can lead to financial pressure.

### No Single Department is Responsible for Managing Waste

“There is no single department responsible for managing waste. What is positive is that hospitals are taking a currently decentralized model for managing multiple waste streams and streamlining it into an integrated model,” she noted. “When I ask facility leaders how many soap dispensers or surgical kits they ordered last year and the total spent, they can answer in a few clicks. When I ask: ‘What was your total waste spend last year?’ everyone looks around the room,” said Leon.

Why? Many departments are responsible for different waste streams. “Environmental services (EVS) professionals usually manage the bulk of medical waste and solid waste. EH&S or the facilities department might be responsible for the hazardous waste

streams. And engineering typically takes construction waste,” Leon concluded.<sup>2</sup>

When the process of managing waste is segmented, a great burden is placed on EVS teams. Cross functional collaboration and communication between many departments within the hospital is critical.

### Education Changes Culture

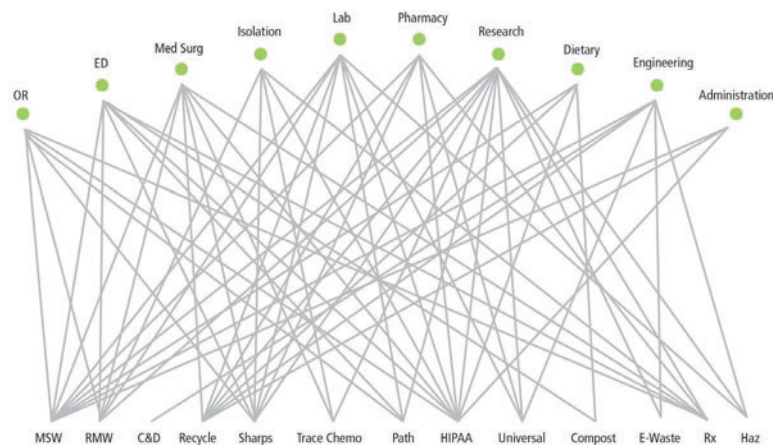
Identifying ways to stay compliant while becoming sustainable often means implementing a green team and educating staff to stop looking at waste as ‘waste’ when items such as desks, chairs, water pitchers, cups, laptops, and iPads are recyclable.

Managing 10 to 12 waste streams, 80 percent of which are highly regulated, is not an easy task. The process involves clinical and non-clinical departments and requires a significant culture change, no matter the size or location of the hospital.

Segregation and waste stream diversion standards help redirect waste to drive better economics and sustainability efforts.

AHE member, Yale-New Haven Hospital Environmental Services Team Lead

## Managing hospital waste streams is a complex process...



Robert Frankel noted, “There is a massive opportunity for waste reduction and sustainability within hospitals. Rounding with managers and speaking with staff helps make sure that things are being disposed of in the appropriate waste stream. Education is critical to focus on getting bandages, gloves, and other normal trash materials out of the red bags and into the clear bags or containers where they belong.”

### Keep Drugs Out of the Public Water System

It is important for EVS teams to know what waste they are handling, whether it is hazardous or nonhazardous, and the process of signing the appropriate manifests or DOT shipping papers. The EPA has specific management requirements for hazardous waste. For instance, medications such as warfarin (Coumadin) and nicotine must be kept out of the water supply and therefore should be discarded in separate, designated containers that require responsible disposal by a properly licensed company. Either way, several guidelines help you better understand the risks.

- 1) Understand which state or federal regulations impact drug disposal;
- 2) Protect your community by not allowing narcotics to be diverted; and
- 3) Properly store waste on site and restrict accessibility to unauthorized personnel.

The issues of pharmaceuticals polluting the waterways were highlighted in the early 2000s with the U.S. Geological Survey (USGS) Water Survey finding substances in

80 percent of tested streams. Roughly one third of those contaminants were pharmaceutical substances which prompted close examination of how hospitals dispose of pharmaceuticals and how they affect Americans. Regulatory and legislative bodies have begun establishing and enforcing strict hospital waste guidelines. This increase in regulatory oversight has left hospital leaders challenged to understand what their role and responsibilities are and how to avoid costly fines and citations.

Combined with keeping drugs out of the water, hospital leaders and EVS professionals also desire to keep containers that carry pharmaceutical waste out of landfills. At Beebe Medical Center (BMC) in Lewes, Del., a 24-month case study<sup>2</sup> of reusable pharmaceutical containers tracked the reuse rates for 2,184 containers serviced. Ninety-seven percent of the reusable containers were eight-gallon and 17-gallon. By utilizing reusable containers, BMC diverted between 3.7–5.0 tons of plastic from disposal, therefore minimizing landfill contributions and reducing hospital disposal costs.

### Proactive, Reusable Sharps Container Services Don't Always Add Labor Costs

An often overlooked component of reducing waste includes the waste containers such as reusable sharps containers.

Yale-New Haven Hospital switched from using disposable to eco-friendly reusable sharps containers. The solution creates a “win-win” for the facility said Frankel. “Staff

safety is improved due to the container’s user-friendly ‘point and drop’ design. The container is a FDA-regulated medical device, which can be reused 600 times creating a greener, more sustainable solution. We use a company that manages proactive container exchange, so EVS teams and hospital staff no longer have to replace filled containers. This service decreases labor, and we have realized a 25 percent reduction in regulated medical waste,” said Frankel.

The Dana Farber Cancer Institute, Boston, Mass., has a clinical program devoted to cancer care. “All of the clinical sharps containers are sent for incineration as trace chemotherapy. However, most of the sharps from our basic research program are diverted to the reusable sharps container service to improve our carbon footprint,” explained Karen Byers, biosafety officer. “We implemented the proactive container exchange service, very cautiously at first, on one research floor for three months. We then expanded the service to one building on another campus and then expanded to our research community. The statistics speak for themselves. In 2012 we diverted 6,562 pounds of plastic and 515 pounds of cardboard from the landfill, which prevented the emissions of 3,896 pounds of CO<sub>2</sub>. These numbers are the equivalent of not burning 201 gallons of gas or 74 propane cylinders for home barbecues.”<sup>3</sup>

Byers noted that the service has resulted in considerable time savings. “Previously, researchers had to order disposable sharps containers, monitor the level of sharps in the container, replace as required, and then request pickup of the full container. Now the process is automatic—the container exchange partner comes in, removes containers, and replaces them. This is working well.” ●



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### REFERENCES

- <sup>1</sup>[www.sustainabilityroadmap.org/topics/waste.shtml#Udq\\_ax2nqQ](http://www.sustainabilityroadmap.org/topics/waste.shtml#Udq_ax2nqQ)
- <sup>2</sup>Stericycle, Inc.
- <sup>3</sup>[www.stericycle.com/carbon-footprint](http://www.stericycle.com/carbon-footprint)