Second Time Around

Operating rooms are seeing the value in switching from disposable to reusable textiles.

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THE OPERATING ROOM is notorious for its large financial and environmental footprints—especially when considering its relatively small spatial footprint within the walls of the hospital. Besides consuming vast amounts of energy and accounting for as much as 33 percent of a facility's supply budget, the OR is also responsible for as much as 33 percent of a facility's waste.

Disposable products are pervasive throughout the operating room—and in health care in general—with the notion of sterility, quality control, and safety. These one-time use items then end up in the waste stream, adding costs—for both purchase and disposal—to the organization.

One area more and more facilities are looking at are disposable surgical linens (gowns, table covers, towels, drapes, etc.), as well as other disposable products—basins, pitchers, and more. These disposables are a significant contributor to OR waste, with one study estimating that by switching to reusables (back table covers, gowns, drapes, mayo stand covers, towels, basins, and pitchers), there was a 70 percent reduction in OR waste (Conrardy, et al 2010).

Reusable surgical gowns have been shown to meet all AAMI/ANSI standards for barrier protection while also increasing staff comfort. In addition, reusable gowns eliminate the waste associated with disposable surgical gowns, which often enters the regulated medical waste stream. Preventing this waste can save valuable health care dollars while meeting clinical needs and increasing staff satisfaction. Reusable gowns are available through suppliers and can be repaired, cleaned, sterilized, and repackaged onsite through laundry and sterile processing or through third-party reprocessors who collect, clean, repair, sterilize, and repackage gowns for use in the OR. Because the reusable surgical gowns are required to meet stringent AAMI/ANSI protection standards, some hospitals have found it easier to utilize a third-party reprocessor, who can validate that the gowns meet these standards. And because of cleaning and sterilization requirements, some third-party reprocessors may be able to offer a more environmentally preferable process for chemical and water use during laundering and sterilization. Both reusable gown options, however, can reduce overall waste volume generated by the OR as well as waste costs.

Another study performed at two major Washington, D.C.-area hospitals compared qualities such as comfort, ease of use, and protective properties between high performance reusable surgical linens and disposable linens. The study found that clinicians overwhelmingly preferred the reusable linens to the disposable linens.

In the May 2012 issue of *Anesthesia and Analgesi*a, a review article highlighted multiple studies examining reusable linens versus disposable linens—the cost, efficacy, quality, and comfort as well as environmental impact—water use, emissions, and energy consumed. While reusables and disposables were of comparable ranking in terms of cost, quality, and comfort (in most instances), the article pointed out that in all environmental factors considered, reusable linens were preferable, with disposables having an impact almost 200 percent that of the reusables.

Many facilities are examining current practices to identify any opportunities that might reduce both their overall environmental impact and unnecessary expenses. As purchasing contracts come up, facilities have the opportunity to evaluate current and new products to not only

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Switching from disposable to reusable linens and gowns in the OR can reduce waste.

enhance clinical care and clinician preference, but also take into consideration environmental impact and the total cost of ownership.

In 2010, when their contracts were under review, the University of Maryland Medical Center examined current buying practice—purchasing reusable linens and working with a third-party laundry service—with a new opportunity to purchase disposable linens. What they found was that using reusable surgical linens and basins helped them to avoid 138,748 pounds of waste annually, as well as helped them to recover surgical instrumentation inadvertently mixed in with the linens. All in all, these savings accounted for almost $78,000 annually, and they once again chose to continue utilizing the reusables. For more on this case study, visit: practicegreenhealth.org/casestudy-uofmd

For years, the University of Michigan Medical Center utilized reusable gowns. Then, in 2010, they did a competitive bid and seriously considered moving to disposable gowns. After considering the water durability, splash protection, staff comfort, and financials, they reaffirmed that the reusable gowns were the gowns of choice for the University of Michigan Medical Center. Their partnership with a third-party laundry service allowed them to reprocess more than one million reusable gowns, avoiding 409,584 pounds of waste for a cost savings of $126,970 in 2012. Although ongoing concerns and challenges of the program include staff compliance and placing the gowns in the correct bins, they are optimistic that consistent education around the program will help. It is also important to note that they have worked very closely with their vendor to address concerns about quality, immediately reporting any issues so that they are addressed appropriately.

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