

## **Latex conversions at Norton Healthcare**

Until a few years ago, few materials were as pervasive in medical products as natural rubber latex, a substance found in thousands of devices and a key component in everything from gloves, catheters, syringes and breathing circuits to electrode pads, IV injection ports, medication vial stoppers – even wheelchair tires. Latex has long been used in many products because it is cheap, durable, plentiful and can be molded into virtually any shape or size.

An estimated one in 10 people are allergic to natural rubber latex, and those who are allergic may respond with a range of symptoms, from benign dermatitis to life-threatening anaphylactic shock. There is no known cure for latex allergy; avoidance of latex exposure is the only protection.

Healthcare facilities have taken a variety of approaches to reducing exposure. All approaches include replacing latex with some type of natural or synthetic alternative. Some facilities have created latex-free procedure rooms, operating rooms or special carts, while others have attempted to move to an entirely latex-free hospital. However, full-scale conversions to latex alternatives have proven to be daunting.

### **Persistence pays off in latex conversions at Norton Healthcare**

For many hospitals and systems, including Norton Healthcare in Louisville, KY, success has often come one product and one clinician at a time. As Claire Rupert, Norton's corporate division director of value analysis has discovered, a lot of perseverance and passion can lead to success.

Norton Healthcare is the Louisville area's leading hospital and health care system and the area's second largest private employer. The not-for-profit system – the largest in Kentucky and rated one of the top 100 integrated healthcare delivery systems in the country – includes five large hospitals in Louisville and 10 immediate care centers. It employs 9,700 people, with almost 2,000 physicians on the medical staff.

Rupert, who has an extensive background in nursing, spends her time at Norton heavily focused on new technology, keeping a close eye on product innovations proven to provide better quality care.

### **Implementing a 'stretch' goal**

Several years ago, Norton adopted a plan that got the ball rolling with latex. "One of our strategic initiatives has been to work with our supply chain team to identify and evaluate latex alternatives and consider, when feasible, full-scale conversions," Rupert said. "If a full-scale conversion isn't possible, we diligently work at educating our suppliers and our staff. Latex is in so much, it's unbelievable."

Rupert's preliminary analysis revealed a score of contracted products with latex content. "Aside from the obvious products like gloves," she said, "we found items such as office supplies (erasers and pen grips, for example) that contained latex, and even found items we had no control over, such as balloons delivered to patients' bedsides in floral arrangements."

Complicating matters is the fact that one of Norton's facilities is a children's hospital that treats many kids with spina bifida, a condition that makes them highly susceptible to adverse latex reactions.

Rupert soon discovered that some latex conversions were relatively easy to accomplish. "For the past two years, we've focused on taking latex out of our supply chain in a piecemeal fashion whenever it's possible, keeping in mind there are new products coming out all of the time," Rupert said, noting that successful latex conversions at Norton have included tapes, bandages and the pads used on crutches.

## **Education efforts**

Despite all the negative publicity surrounding latex in recent years, Rupert has discovered the value of continuously educating both staff and suppliers about the issue.

"Most people, including staff, don't recognize latex allergy as a priority until they fully understand its ramifications and health risks," said Rupert. Among the first things Norton did was ask front-line medical staff to closely examine the products they use every day, including those sitting on the shelves in nursing units, in an effort to identify any items that contained latex. "This was an initial effort to raise awareness, and it worked," Rupert said.

Norton recently developed a Web-based training program for latex and DEHP, a plasticizer used to make many components flexible. The training program has been incorporated into the system's safety and competency programs for nurses.

Educating the vendor community has also been challenging. "The vendor community is finally becoming more aware of the urgency and the need to get rid of latex from their products wherever possible," said Rupert. "We pressure vendors to at least be aware of our concerns and let us know if they offer any alternatives to their products containing latex or DEHP, as well as any components of their products that contain these substances."

Still, those efforts have had mixed results. While some suppliers are able to readily identify their products that contain latex, and some offer versions with latex-free components, others aren't as forthcoming. "Information about the latex content in medical devices requires a great deal of scrutiny and it's incumbent on all of us to ask some very pointed questions of the vendor community about it," Rupert said, noting that some issues aren't entirely clear until you point them out to suppliers. For example, one supplier may indicate that its device is latex-free, and miss the fact that a little port or connection piece on a medical device may be made of latex. "This takes some digging to identify that information," she said.

When vendors aren't responsive about those questions, it's time to get tough. "We tell them, 'Show us your latex alternatives or we're going to have to shop elsewhere'," she added.

## **Challenges**

Rupert has experienced a number of challenges with latex conversions.

- *Unacceptable quality in existing latex-free products.* In her experience, Rupert has found that while there are many superior latex-free alternatives on the market today, many are not yet acceptable. “For example, we did a trial on a brand of latex-free tape for endotracheal tubes on our preemies, but our clinicians found that it didn’t adhere very well,” she said. Like many hospitals and hospital systems, Norton has found that some hospital-wide latex conversions don’t happen overnight. When it embarked on a plan with its perioperative group more than two years ago to convert to powder-free gloves, it soon found that while it was easy enough to convince staff of the need to switch, finding an acceptable product wasn’t. “It took this long because we had to wait until we found a high enough quality and clinically acceptable product our staff also felt comfortable with,” said Rupert, noting that today powdered latex gloves have been completely eliminated from Norton’s supply chain.
- *Some latex-free alternative medical products are still more expensive.* Even today, latex-free gloves are typically 20 percent to 40 percent higher in cost, Rupert said. And though the system’s decision to convert was based entirely on worker and patient safety, the cost impact is real.

Additional challenges included the lack of a single repository of latex product information and the lack of a universal standard labeling system for latex.

- *Lack of a single repository of latex product information.* One of the more frustrating things for a value analysis professional like Rupert is not having readily available information, and no where is this more the case than with latex. “There currently is no single reliable clearinghouse for all of the latex-free medical products available today that contains useful information such as manufacturer and product number,” said Rupert, noting that she has had to rely upon bits and pieces of information from a wide variety of sources. “We’re in the process of developing a reference file for our buyers to use, but it’s a time-consuming and laborious process because the contact information changes so often or is incomplete,” she said. Moreover, she added, “it sometimes is a challenge trying to get to the right individual with a vendor who is knowledgeable about the issue.”
- *No universal standard labeling system for latex.* Another challenge for end users is knowing with confidence that a medical product or device they choose is *entirely* latex-free, Rupert said. “The lack of a universal labeling system that addresses all components of a medical product creates a lot of challenges for us and our staff because it sometimes isn’t evident that a product that is presumed to be latex-free may actually contain a small part, such as small connection or port, that actually contains latex.” Manufacturers are required by the FDA to label products and packaging that contain latex but no requirement exists for labeling of “latex-free” items. “Some vendors may indicate ‘latex-free’ on a box of items, but the lowest unit of measure may not have such useful or readily apparent information,” she said. For example, latex-free labels sometimes are not included on individual items such as tape. “A nurse may carry around a roll of adhesive tape in her pocket for a few days and inadvertently use it on a latex-sensitive patient without realizing there is a problem,” she added.

## Premier responds

When it became evident that a global search of latex-free product information on the Internet, as well as cold calling vendors, would cost too much time and manpower, Rupert said she reached out to Premier, the national healthcare alliance to which Norton belongs.

In April 2007, Premier's data management staff, in collaboration with Cardinal Health's Supply Line, standardized the medical product terminology to make it easier to search for products that are latex-free in Premier's Supply Chain Advisor member product catalog. The new standardized and searchable attributes (with a hyphen) include "latex-free, PVC-free, DEHP-free, and mercury-free." Premier's Supply Chain Advisor also helps members assess their supply chain in real time, research products, capture immediate savings and improve processes for sustained results. The integrated solution allows an organization to analyze its purchases and manage contracts online.

To supplement the search capability in Supply Chain Advisor, Premier released a new latex-free catalog for members in January 2008 that includes 16,000 latex-free items in 247 product groups representing 440 suppliers. The 600-page catalog can be downloaded and used by clinical staff to identify latex-free items.

Premier also provides resources and tools on reducing latex-allergies on its Safety Institute Web site at [www.premierinc.com/safety](http://www.premierinc.com/safety).

In addition, Rupert said she regularly benchmarks her efforts with colleagues through the Association of Healthcare Value Analysis Professionals.

For now, the road to a totally latex-free system is not as long as it once appeared. Norton is currently evaluating latex-free conversions in IV tubing, urinary catheters and custom packs.

"It's always a challenge," Rupert said of the effort. "But sometimes, when we *know* we can fix a problem, we can be successful if we're diligent and proactive. Our partnership with Premier contributed to our success."