

# Latex Allergy Risks Live On



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**Reduction in the prevalence of IgE-mediated allergy to latex proteins from gloves in patients may lead to lax attention by health care personnel to avoid use of latex products in latex-allergic subjects. Recent evidence from the Pennsylvania Patient Safety Reporting System shows an alarming continuation of adverse events mostly from latex urinary catheters. We are strongly advocating that health care personnel must continue to pay close attention to avoidance of latex in patients with a history of latex allergy.** © 2018 American Academy of Allergy, Asthma & Immunology (J Allergy Clin Immunol Pract 2018;6:1877-8)

## INTRODUCTION

The January 2017 ban on the manufacture and sale of powdered latex gloves in the United States by the US Food and Drug Administration (FDA) represented a major public health milestone. This step is critical to curtailing a possible re-emergence of the latex allergy epidemic experienced in patients with spina bifida, health care workers, and other individuals at increased risk of sensitization to latex proteins.<sup>1</sup> Elimination of this key sensitizing source improved the safety of the health care environment for both patients and staff.<sup>2,3</sup> Yet, in the shadow of this important intervention, the latex-allergic population is still at risk of being overlooked, mismanaged, or accidentally exposed, with life-threatening effects. The irony of success is that these safety risks may grow as the number of latex-allergic patients in the population declines and the use of powdered latex gloves diminishes. Unfortunately, comparative data are lacking about the trend of allergic reaction rates to latex materials other than gloves in the medical literature.

The prominent focus on gloves in the latex allergy epidemic was critical in eliminating future disease and new sensitization. Glove use and latex allergy incidence both climbed sharply in the context of universal precautions and the AIDS epidemic in the 1980s.<sup>4,5</sup> Early case studies, which identified latex gloves as the source of exposure, raised awareness and provided direction for

risk reduction efforts. In the years that followed, a shift toward utilization of low protein powder-free latex gloves and synthetic gloves coincided with a decrease in latex allergy incidence, building the case for the FDA ban on powdered gloves.

To this day, the relationship between medical gloves and latex allergy remains strong and poses important patient safety challenges. The distinction between sensitization and clinical reaction is a nuance that may not be universally appreciated. Powdered gloves were banned to prevent sensitization, but many individuals are still at risk of allergic reactions and must be identified and protected from inadvertent exposure. Paradoxically, decreasing the opportunities to become sensitized via powdered latex gloves potentially increases the need for attention and vigilance in avoiding contact of sensitized patients to other latex products. With more than 40,000 everyday items containing latex,<sup>1</sup> it is not just about the gloves.

Studying trends in safety event reports can identify the system and process failures that put latex-allergic patients at risk. Pennsylvania's robust patient safety database, the Pennsylvania Patient Safety Reporting System (PA-PSRS), is governed by the Medical Care Availability and Reduction of Error Act of 2002,<sup>6</sup> which requires acute-care facilities (ie, hospitals, ambulatory surgery facilities, birthing centers, and abortion facilities) to report patient safety events ranging from near misses to death through PA-PSRS.<sup>7</sup>

A query of the PA-PSRS database identified 616 latex-related events submitted from 2014 through 2016.<sup>8</sup> A total of 544 (88%) breaches in latex precautions reached the patient. Most (n = 408/544 or 75%) of these exposures were attributed to indwelling urinary catheters.

The remaining 25% (n = 136) of exposures were attributed to 35 unique products, including gloves (n = 53), Penrose drains (n = 19), and red rubber catheters (n = 17). Ninety-nine percent (n = 537 of 544) of exposures did not cause harm or require additional care. Seven of 544 (1%) exposures did result in temporary patient harm that required treatment or intervention. Event narratives submitted as part of the reports highlight clinical staff vulnerabilities in screening, awareness, communication, and product management. This new observation—that allergic reactions to latex are occurring most prominently from latex urinary catheters contacting mucosal surfaces—is critical information that needs dissemination to patients, allergists, and hospital personnel who may have had a false security in the latex powder ban and shift of use to synthetic examination gloves. The mixed urinary catheter market, consisting of latex, latex-coated, and nonlatex options (such as silicone), can make product selection complex at both an organizational level and the point of care.

Seventy-two of 616 (12%) PA-PSRS reports described near misses, or breaches in latex precautions that could have caused an exposure if not for detection and active recovery by staff.<sup>8</sup> Taking

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a Safety-II approach,<sup>9</sup> some of the “things that went right” included asking a patient “are you allergic to latex?” identifying a latex product present in an operating room incorrectly deemed to be latex-safe, and recognizing discrepancies between allergy documentation and visual reminders at the point of care (eg, allergy wristbands). These safety practices demonstrate how humans compensate for weaknesses in complex health systems.

Unfortunately, latex allergy appears to still be prevalent, albeit in a smaller subset of individuals who are at a significant risk for untoward reactions, in hospitals and, potentially, in other settings. Staying vigilant with latex avoidance and latex-safe precautions is necessary. Attention to labeling and avoiding contact with latex products in individuals are critical to ensuring the public that they are safe in medical settings.

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