

Reducing Workers' Compensation Costs for Latex Allergy and Litigation against Glove Manufacturing Companies

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It has been well documented in the medical literature that powdered medical gloves can have serious consequences to patients and health-care workers. Adverse reactions to natural latex gloves, such as contact dermatitis and urticaria, occupational asthma, and anaphylaxis, have been documented as a significant cause of Workers' Compensation claims among health-care workers. While the cost of examination and surgical gloves is significant, this factor must be considered with the total cost of Workers' Compensation claims and possible litigation bestowed upon hospitals and glove manufacturing companies. In the United States, Canada, Belgium, and Germany, medical leaders have documented the dangers of powdered latex gloves and have implemented transition programs that are reducing Workers' Compensation claims filed by health-care workers. While attorneys view litigation against powdered glove manufacturers as the "next big tort," the authors of this article were not able to document all compensation costs to disabled workers because many settlements do not allow the claimant to disclose this information.

KEY WORDS: Workers' Compensation, latex allergy, occupational asthma, Americans with Disability Act, glove manufacturer litigation, Food and Drug Administration

Introduction

It has been well documented in the medical literature that powdered medical gloves can have serious consequences to patients and health-care workers.¹ Adverse reactions to natural latex gloves, such as contact dermatitis and urticaria, occupational asthma, and anaphylaxis, have been documented

as a significant cause of Workers' Compensation claims among health-care workers.^{2,4} Occupational latex allergies can be associated with high socioeconomic costs for both the claimant and the employer. Institutions that have transitioned from powdered to powder-free latex gloves observed a notable decrease in the number of Workers' Compensation claims for latex allergy related

disease.^{2,3} This article focuses on documented Workers' Compensation claims and lawsuits filed against hospitals and glove manufacturing companies that distribute powdered latex gloves.

Workers' Compensation Claims

In 2008, Vandenplas et al. wrote a landmark article on latex-induced occupational asthma. In that article, the authors discussed the time trend to incidence and relationship with hospital glove policies.³ They indicated that natural rubber latex had become a major cause of occupational asthma in workers using natural rubber latex gloves. In their study, the incidents of natural rubber latex-induced occupational asthma were identified through a retrospective review of all claims submitted to the Workers' Compensation Board in Belgium, up to December 2004. In their study, the diagnosis of natural rubber latex-induced occupational asthma was categorized as definite, probable, and likely or indeterminate. In addition, the patterns of glove usage were determined through a questionnaire survey distributed throughout Belgian hospitals. In their extensive study, the authors found a total of 298 claims for natural rubber latex-induced occupational asthma. Of these, latex-induced occupational asthma was determined to be definite in 127 subjects, while 68 had probable latex-induced occupational asthma. The authors highlighted that cases of latex-induced occupational asthma declined markedly from 1999 to 2004. This decline in allergic reaction was associated with a reduction in the use of powdered natural rubber latex gloves from 80.9% in 1989 to 17.9% in 2004. The authors indicated that powdered natural rubber latex gloves were being substituted with natural rubber latex-free gloves, especially in the case of non-sterile procedures. The authors concluded that the national compensation-based data confirmed that a percentage decline in incidence of natural rubber latex-induced occupational asthma has occurred since the late 1990s. They concluded that the downward trend was associated with the decreasing usage of powdered natural rubber latex gloves.

In 2008, from the Department of Dermatology, Geisinger Medical Center, Danville, PA, Malerich et al. studied the effect of a transition to powder-

free latex gloves on Workers' Compensation claims for latex-related illness.² The authors pointed out that adverse reactions to natural latex gloves are an important cause of Workers' Compensation claims among health-care personnel. In their effort to decrease latex-related allergies, the authors introduced an institutional transition to powder-free latex gloves in 1991. The authors wanted to examine the effect of this transition on the number of Workers' Compensation claims for latex-related allergies. They carefully reviewed the claims they found from 1997 to 2008 and concluded that the incidence of claims from latex-related illness was significantly lower following the switch to powder-free gloves. The authors concluded that the cost of gloves increased, but was partially offset by a decrease in Workers' Compensation payments and operating room expenses.

In 2005, from the Institute for Occupational Medicine, Hamburg State Department of Environment and Health, University of Hamburg, Hamburg, Germany, Latza and Baur described the effectiveness of a nationwide interdisciplinary preventive program for latex allergies.⁴ The effectiveness of the prevention program was described and evaluated with a before-and-after design comparing data on compensation claims for latex-related skin and airway diseases of the German statutory compensation services. The survey on changing glove use was implemented after the program. The main feature of this program among health-care workers was to enhance awareness by means of educational components on the etiology of latex hypersensitivity for health-care workers and their providers, as well as professional trainers. The number of reported compensation claims for latex-induced skin diseases was enhanced from a premeasured 664 in 1996 to 884 during the program in 1998 and declined after the program. Doctors' assistants in practices and nurses/nurse assistants/midwives filed most of the claims. Similar decreases were noted for confirmed claims and latex-related respiratory diseases. Two other prevalent occupational diseases in health-care workers—low back disorders and infectious complications during this period—were also found to decline during this study period. The authors conducting the survey believed that a considerable concurrent decrease in the use of powdered latex gloves contributed to this decline in Workers' Compensation claims. They concluded that this

program set a standard for worker protection and regulation in their country.

In the report by Sussman, Beezhold, and Liss, they provided a historical prospective on latex allergy.⁵ The widespread use of powdered latex gloves, following the institution of universal precautions in 1987, substantially enhanced the frequency of adverse reactions to natural rubber latex. The authors pointed out that the most common reactions to natural rubber latex were irritant or allergic dermatitis. There are also IgE-mediated reactions to natural rubber latex that range from contact urticaria to occupational asthma and even anaphylaxis, causing significant morbidity to the patient. On the basis of their comprehensive review, they recommended the institution of policies to use only low protein, powder-free gloves. These policies have dramatically reduced the number of visits to occupational health centers as well as Workers' Compensation claims, primarily those due to occupational asthma. Banning the use of cornstarch on medical gloves is the most obvious solution to this epidemic of latex allergy in health-care settings.

One year prior to the above report, Liss and Tarlo documented the incidence of natural rubber latex-related occupational asthma associated with intervention and glove changes over time.⁶ They obtained the numbers of allowed asthma claims with exposure to latex by year in Ontario, Canada, from the Ontario Workplace Safety Insurance Board. Through 1999, there were 60 allowed claims in Ontario for asthma with exposure to latex. Among these, 49 were health-care workers. The authors noted that the number of claims among health-care workers changed from zero to two per year up to 1990. The number of claims increased 7%–11% per year between 1991 and 1994. Fortunately, the claims declined 3% in 1995–1996 and 1%–2% from 1997 to 1999. Of the 10 institutions having two or more occupational asthma claims, all claims occurred in 1996 or earlier, for a total of eight claims (80%). At the largest hospital, there were five accepted claims, with the year of diagnosis 1993 (one case), 1994 (three cases), and 1995 (one case). The authors concluded that, despite the effect of increased recognition, the introduction of gloves with decreased powder/protein, as well as other interventions, can be associated with a temporary decline in the number of cases of latex-related occupational asthma.

In the Department of Health Policy and Management, Rollins School of Public Health at Emory University, Atlanta, GA, Phillips and his associates reported a cost analysis of health-care worker disability due to latex allergy and asthma.⁷ They examined the cost of two strategies, latex-safe versus the status quo, from the perspective of three health-care institutions. In all three facilities, the cost of using non-latex gloves exceeded the cost of using latex gloves. However, 1% or fewer of those at risk would have to become fully disabled or fewer than 2% would have to become partially disabled for the continued use of latex gloves to exceed the cost of a latex-free approach. On the basis of this extensive evaluation, the authors concluded that health-care facilities, regardless of size, are likely to benefit financially from becoming latex-safe even if latex-related disability levels are extremely low.

Litigations Against Hospitals and Glove Manufacturers

Due to the dramatic increase in the use of natural latex gloves, and a subsequent rise in reported latex-related allergies, lawsuits alleging hospital and physician negligence are increasing, as well. In a retrospective analysis by Dillard et al., the authors provided a summary of health effects associated with latex medical glove use that was reported to the Food and Drug Administration (FDA).⁸ The demographic and clinical information abstracted from these reports were used to perform frequency and trend analysis from 1973 through 1999.⁸ A total of 2639 candidates were reported with a subset of 2396 unique reports of glove-associated reactions that served as the subject of their study.⁸ The authors found that in 36% (874) of the total cases reported, litigation was mentioned. There were a total of 398 reports indicating disability, and of those disability cases, 82% (325) involved litigation.⁸

In 2001, Frank and City recounted a successful lawsuit in which a health-care worker in Wisconsin was awarded \$1,000,000 in a case against a manufacturer of natural latex gloves with a high protein content and cornstarch powder lining.⁹ The award included \$584,000 for pain and suffering.⁹ The authors also mention that other health-care workers have been successful in avoiding legal obstacles to similar suits because the judges were

willing to give them the benefit of the doubt. The Wisconsin health-care worker's argument to the jury was that the gloves manufactured by Smith & Nephew were "unreasonably dangerous" under Wisconsin law because the product was lined with cornstarch powder, which caused the proteins in the latex to become more easily inhaled.⁹

In a document developed in 2005 by the Task Force on Latex Sensitivity of the American Society of Anesthesiologists Committee on Occupational Health of Operating Room Personnel, under a section on *Litigation*, the authors indicated that disability-related claims by employees who have developed latex allergies are growing exponentially.¹⁰ They also reiterated that since the first product liability lawsuit filed in 1991 against glove manufacturers, latex-related litigations have been called the "next big tort."¹⁰ It was also mentioned that employees with medical-related disabilities, such as latex allergies, fall under the Americans with Disabilities Act (ADA), and that employers are required to provide their employees with reasonable accommodations such as powder-free medical gloves.

Although attorneys view litigation against powder glove manufacturers as the "next big tort," the authors of this article were not able to document all compensation costs to disabled workers because many settlements do not allow the claimant to disclose this information.

Conclusion

Realizing the dangers of cornstarch-lined medical gloves to patients and health-care workers, 12 health-care professionals filed a Citizen's Petition to the FDA to ban cornstarch from medical gloves (docket number FDA-2008-P-0531). This petition was submitted to the FDA on September 28, 2008, and is currently being reviewed by a panel of undisclosed specialists. As the authors of the Citizen's Petition wait for a decision from the

FDA, it is our hope that this review article on Workers' Compensation and glove manufacturer litigation will be a stimulus for the committee to ban the use of cornstarch to line medical gloves in the United States.

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