

Hospital Employee Health®

INSIDE

■ **Policies/procedures:** OSHA recommends health care worker evaluation and management. 64

■ **Latex hearing:** Those not called to testify include organizations with experience and expertise 65

■ **Immunization programs:** Researchers find influenza vaccination decreases absenteeism 67

■ **Take a shot:** Hospitals find ways to boost flu vaccine compliance numbers 68

■ **JCAHO's decision:** No new employee health standards; examples to be added. 70

■ **Calendar of events.** 71

■ **Web Alert:** Medical Center Occupational Health page links practitioners to relevant documents 72

■ **Inserted in this month's issue:** Hepatitis B survey to complete and fax back

JUNE
1999

VOL. 18, NO. 6
(pages 61-72)

American Health Consultants® is
A Medical Economics Company

OSHA issues latex allergy warning amid intense storm of accusations

Technical bulletin alerts field inspectors to risks for health care workers

The U.S. Occupational Safety and Health Administration (OSHA) has issued a controversial technical bulletin alerting compliance officers to latex hazards for health care workers despite a storm of protest from organizations and individuals accusing the agency of promoting fraudulent science and fueling hysteria.

OSHA officials insist the bulletin is only an advisory and not a new regulation. Medical officer **Angela C. Presson, MD, MPH**, says the bulletin was developed in response to "numerous questions" from compliance officers who inspect health care facilities, in an effort to provide background information.

Opposition to the proposed OSHA bulletin converged at a hastily called congressional subcommittee hearing recently. The Subcommittee on Oversight and Investigations of the House Education and the Workforce Committee, chaired by Rep. Peter Hoekstra (R-MI), heard testimony from both critics and supporters of the document, which had not been released at that point.

Testifying before the subcommittee, Presson said the bulletin is "only advisory; it is not a new regulation or a standard, and its purpose is to assure that our field staff have accurate information on this issue."

The OSHA bulletin does not differ significantly in content from the latex hazard warning issued by the National Institute for Occupational Safety and Health (NIOSH) in 1997.¹ (See *Hospital Employee Health*, **September 1997**, pp. 97-101.) That, too, met with active opposition during development, mainly from latex glove manufacturers. It also is similar in many respects to 1996 latex guidelines published by the Arlington Heights, IL-based American College of Allergy, Asthma, and Immunology.² (See *HEH*, **January 1997**, pp. 5-7.)

Intended to educate and alert field inspectors to the potential for HCWs to have allergic reactions to natural rubber latex (NRL) in the workplace (see "Types of reactions" table, p. 63), the bulletin recommends reducing unnecessary exposure to NRL proteins.

To reduce worker exposure to NRL proteins, OSHA recommends hospitals follow general administrative procedures, including the following:

- in selecting latex gloves for worker use, designating NRL as a choice only in situations requiring protection from infectious agents;
- choosing NRL gloves with lower protein content, as well as powder-free gloves offering the additional benefit of reducing systemic allergic responses;
- providing alternative non-NRL gloves as choices for worker use (and as required by OSHA's bloodborne pathogens standard) for workers allergic to NRL gloves.²

Attempt to circumvent rulemaking?

OSHA had developed and sent to stakeholders several versions of the bulletin during the past two years, each time revising it according to comments received. Nevertheless, some critics testify before the congressional subcommittee charge that OSHA is attempting to disguise rulemaking in the form of an information bulletin.

F. Samuel Eberts III, associate general counsel for latex glove manufacturer Allegiance Healthcare Corp. in McGaw Park, IL, called upon the panel to address "OSHA's circumvention of the federal notice and comment rulemaking procedures under the guise of issuing its proposed bulletin." Allegiance is a market leader in latex glove sales and also produces a smaller line of non-latex alternatives.

In lengthy testimony, Eberts also charges that the bulletin is riddled with "scientific deficiencies," including "unethical," "fraudulent," and "biased" data. He says no proof exists that exposure to airborne powder from latex gloves has sensitized HCWs (see related story, p. 65), and further maintains that NRL allergy is not occupationally linked.

Allegiance officials did not respond to repeated requests for an interview to explain their testimony.

Also speaking against the bulletin were former U.S. Surgeon General **C. Everett Koop**, MD, and **Charles E. Reed**, MD, retired head of the division of allergic diseases and internal medicine at Mayo Clinic in Rochester, MN. *HEH* has learned from several sources that both are paid consultants to Allegiance Healthcare Corp., although the company would not confirm this.

Both Koop and Reed claim that the OSHA document will unnecessarily frighten health care workers into abandoning universal precautions or even their careers.

Many HCW symptoms are actually due to "anxiety attacks" rather than latex allergy, Reed states.

"Because of the sensationalism that has developed around latex allergy, some . . . health professionals have become terrified of their workplace. Often they have been led to fear that exposure to rubber in any form may kill them. . . . They often conclude that their professional lives are over. . . . For these unfortunate people, the fear generated by the sensationalism is more disabling than the disease would ever be," Reed testified.

He says the OSHA bulletin's wording is "alarming" and will exacerbate the problem.

Koop, testifying by videotape, said powdered latex gloves have come under attack in the past few years due to "hysteria" that is "reminiscent of the hysteria surrounding AIDS in the early years." HCWs have become "unduly frightened" about latex glove use, he states.

OSHA has "fueled this hysteria by interjecting itself into latex glove regulation," Koop charges. He predicts the bulletin will undermine universal precautions, with a "spin-off" of undermining latex condom use, as well.

'The more education, the less hysteria'

Presson responds that the bulletin is intended to quell fears, not fuel them.

"We believe that the more education that is out there, the less hysteria there will be. Some hospitals have eliminated latex, believing that's the length they have to go to in order to protect [HCWs] from developing latex allergy, but that's not our belief at OSHA," Presson says. "I would think our position is helping counter any anti-latex sentiment that others may feel by explaining what the issues are and what components of latex are a problem for a minority of workers," Presson explains.

She says the agency does not intend to discourage all workers from using latex, but that hospital employees such as foodservice staff and others who don't need protection from bloodborne pathogens are encouraged to use alternative types of glove material.

Other critics claim that OSHA is entering Food and Drug Administration (FDA) territory by issuing the bulletin.

Rep. **Charlie Norwood** (R-GA), DDS, vice chairman of the subcommittee, says he questions whether OSHA should be "stepping into this arena."

Recalling his career as a latex-glove-wearing dentist, Norwood testified that the bulletin "seemed to advocate a position in favor of alternatives to latex gloves — such as powder-free or

Types of Reactions

Type Reaction	Symptoms/Signs	Cause	Prevention / Management
Irritant Contact Dermatitis	scaling, drying, cracking of skin	direct skin irritation by gloves, powder, soaps/detergents, incomplete hand drying	Obtain medical diagnosis, avoid irritant product, consider use of cotton glove liners, consider alternative gloves/products
Allergic Contact Dermatitis (Type IV delayed hypersensitivity or allergic contact sensitivity)	blistering, itching, crusting (similar to poison ivy reaction)	accelerators (e.g., thiurams, carbamates, benzothiazoles) processing chemicals (e.g., biocides, antioxidants) Consider penetration of glove barrier by chemicals	Obtain medical diagnosis, identify chemical. Consider use of glove liners such as cotton. Use alternative glove material without chemical. Assure glove material is suitable for intended use (proper barrier)
NRL Allergy - IgE/histamine mediated (Type I immediate hypersensitivity)		NRL proteins: direct contact with or breathing NRL proteins, including glove powder containing proteins, from powdered gloves or the environment	Obtain medical diagnosis, allergy consultation, substitute non-NRL gloves for affected worker and other non-NRL products Eliminate exposure to glove powder - use of reduced protein, powder free gloves for coworkers Clean NRL-containing powder from environment Consider NRL safe environment
A) Localized contact urticaria	Hives in area of contact with NRL		
which may be associated with or progress to:			
B) Generalized Reaction	Include: generalized urticaria, rhinitis, wheezing, swelling of mouth, shortness of breath. Can progress to anaphylactic shock		

Source: Occupational Safety and Health Administration, Washington, DC.

reduced protein gloves," without specifying the definition of those gloves.

"It seems to me that two federal agencies [OSHA and FDA] 'regulating' in this arena with one advocating a particular position in favor of certain types of medical gloves could create confusion," he says.

However, OSHA and FDA deny any conflict.

"We and the FDA both explained that very well at the hearing," Presson says. "OSHA has worked collaboratively with the FDA . . . to

assure coordinated activities in addressing the health hazards associated with exposure to natural rubber latex."

So far, FDA regulatory activity related to latex has focused on promulgating a rule requiring labeling statements on medical devices and device packaging containing NRL.⁴ Labeling information allows sensitized people to avoid exposure and enables users to make informed choices about gloves and other products. (See *HEH*, December 1997, pp. 138-140.)

Hospitals must develop risk-reducing policies

OSHA recommends evaluation, management

The recently released U.S. Occupational Safety and Health Administration (OSHA) latex technical information bulletin states that health care facilities should develop policies and procedures for reducing health care workers' risk of developing natural rubber latex (NRL) allergies in the workplace.¹

"Safe zones" — areas where non-latex products are used after latex proteins are thoroughly removed — may need to be established for HCWs already sensitized to latex, the bulletin states.

Risk reduction strategies include an initial workplace survey and assessment, along with "a coordinated effort to identify and catalogue all NRL products." Managers should be ready to choose appropriate non-NRL alternative products to control exposures and to facilitate creation of NRL-safe zones.

While it is not possible to determine which HCWs will develop latex allergy, evidence links that allergy with allergies to certain foods and plants, such as avocado, banana,

kiwi, chestnut, pollens, and grasses. Another risk factor is a history of multiple surgeries. To help ascertain reaction rates and manage symptomatic workers, OSHA notes that some health care facilities use periodic screening questionnaires for latex allergy symptoms in workers with significant NRL exposure, such as surgical personnel.

"Evaluation of signs/symptoms associated with latex allergy should be accomplished under the direction of a physician with expertise in NRL allergy, with additional medical testing and treatment made available if indicated," the bulletin states.

Latex-free procedure trays and crash carts for treating NRL-allergic individuals are recommended should emergency response to a worker's symptoms include resuscitation. OSHA says to anticipate those situations in the workplace, hospitals should consider providing immediate access to non-NRL-containing equipment.

Reference

1. Occupational Safety and Health Administration. *Technical Information Bulletin: Potential for Allergy to Natural Rubber Latex Gloves and Other Natural Rubber Products*. Washington, DC: OSHA; April 12, 1999. ■

Noting that the FDA "routinely collaborates" with OSHA and other federal agencies to ensure coordinated actions, **Elizabeth D. Jacobson**, PhD, acting director of the FDA's Center for Devices and Radiological Health, assured panel members that recommendations contained in the OSHA bulletin do not conflict with FDA regulations.

In fact, "FDA has been an active participant as the bulletin has been developed," Jacobson says.

Those testifying in favor of the bulletin included **Robert G. Hamilton**, PhD, associate professor of medicine at Johns Hopkins University School of Medicine in Baltimore and developer of the first reliable puncture skin test reagent for diagnosing latex allergy. The test is currently awaiting FDA approval.

After considerable study and investigation, Johns Hopkins Hospital decided to eliminate latex gloves last year, Hamilton told the subcommittee. (See *HEH*, May 1998, pp. 57-60.) The transition has been accomplished with minimal increased cost.

"The OSHA bulletin is an important and positive document," Hamilton says. "Emphasis in this document needs to remain on removal of the powdered latex glove from the work environment, as we believe that it is the single largest source of latex allergen exposure for health care workers and their patients."

The Washington, DC-based American Nurses Association (ANA) also supports OSHA's action. Testifying before the subcommittee on behalf of the ANA and a coalition of HCW labor unions, **Susan Q. Wilburn**, RN, MPH, senior occupational health and safety specialist, said latex allergy is increasing among HCWs.

ANA research shows that up to 200,000 registered nurses are allergic to latex.

"Chronic exposure to latex in an allergic worker can lead to permanent pulmonary and cardiac diseases and premature death," she states.

Latex allergy is largely preventable, Wilburn says, mainly by switching to powder-free and non-latex gloves. Leading U.S. health care facilities,

including the Mayo Clinic, Kaiser Permanente, the Brigham and Women's Hospital in Boston, and Emory University Hospital in Atlanta have made the switch, she points out.

OSHA's technical information bulletin is the "bare minimum needed to protect health care workers," Wilburn testified.

Congress takes no action

Since the hearing, Congress has taken no further action to delay release of the bulletin, which recently was sent to OSHA field offices and compliance officers. Yet, certain questions remain. Why did the subcommittee find a hearing necessary for an information bulletin, which is non-regulatory and contains much of the same information already contained in other recommendations? Also, what was the selection process that determined who would testify? (See related story, at right.)

Gary Visscher, general labor counsel for the House Committee on Education and the Workforce, says hearings provide "a limited number of seats," which did not allow for more witnesses. Witnesses are suggested by the agencies involved, or they can volunteer to testify.

The congressional panel's main concern in calling a hearing was whether the OSHA document was helpful or confusing. More importantly, Congress is worried that informal rulemaking is occurring, Visscher says.

"The concern was whether OSHA has reviewed all the evidence, as they would have to in the regulatory process. There is no assurance of that in an informal process," he states. "One concern that Congress has had is that OSHA, along with other agencies, is moving in the direction of making policy on an informal basis. This may be only a technical bulletin, but if it impacts or influences OSHA's enforcement under the general duty clause, [it] should go through regulation. The question is whether this sort of informal process is acceptable."

(Editor's note: The technical information bulletin is available on the Internet at members.tripod.com/latexallergylinks/LA-TIB.html, and will soon be available on OSHA's Web site at www.osha.gov. Most of the congressional hearing testimony is available on the Web at www.house.gov/eo/hearings/106th/oi/latex32599/wl32599.htm. Wilburn's testimony is available at www.nursingworld.org/gova/federal/legis/testimon/1999/latx0325.htm.)

References

1. National Institute for Occupational Safety and Health. *NIOSH Alert: Preventing Allergic Reactions to Natural Rubber Latex in the Workplace*. DHHS (NIOSH) Pub. No. 97-135. Washington, DC: NIOSH; 1997.
2. Sussman G, Gold M. *Guidelines for the Management of Latex Allergies and Safe Latex Use in Health Care Facilities*. Arlington Heights, IL: American College of Allergy, Asthma, and Immunology; 1996.
3. Occupational Safety and Health Administration. *Technical Information Bulletin: Potential for Allergy to Natural Rubber Latex Gloves and Other Natural Rubber Products*. Washington, DC: OSHA; April 12, 1999.
4. Department of Health and Human Services, Food and Drug Administration. Natural rubber-containing medical devices; user labeling. 62 *Fed Reg* 51,021 (Sept. 30, 1997). ■

Not asked to testify, experts speak out

All suggest avoidance of powdered latex gloves

To note who was absent from the invitees' list to a recent hearing scheduled by the House Subcommittee on Oversight and Investigations is to give that panel's name new meaning. Observers might wonder whether the omission of certain key organizations with experience and expertise in protecting health care workers from the hazards of latex exposure was indeed an oversight.

The subcommittee heard testimony recently both pro and con on the U.S. Occupational Safety and Health Administration's latex technical bulletin.¹ (See this issue's cover story.) However, not called to testify were representatives from the National Institute for Occupational Safety and Health (NIOSH), which published a landmark latex safety alert in 1997 and is the arm of the federal Centers for Disease Control and Prevention charged with safeguarding workers; the American College of Allergy, Asthma, and Immunology (ACAAI), a professional organization that issued latex guidelines for health care facilities in 1996; and the American College of Occupational and Environmental Medicine (ACOEM), the largest organization of U.S. physicians specializing in worker health.

NIOSH guidelines are consistent with information contained in the OSHA technical bulletin, says DeLon Hull, PhD, deputy director of NIOSH's division of surveillance, hazard evaluation, and

field studies in Cincinnati and a lead author of the alert.

“Our recommendations are geared toward ways [for health care workers] to avoid becoming sensitized,” he states. (See *Hospital Employee Health*, September 1997, pp. 97-101.)

He speculates that the greater level of opposition directed at the technical bulletin probably is due to the fact that OSHA is a regulatory agency while NIOSH is not. Nevertheless, powdered glove manufacturers were actively opposed to the NIOSH document as well, which, like the OSHA bulletin, advocates eliminating powdered gloves from the workplace.²

Similar conclusions reached

Hull emphasizes that the Food and Drug Administration also came out with a similar conclusion several months later in a medical glove powder report stating that the major adverse impact of glove powder appears to be its contributing role in natural rubber latex (NRL) allergies, that glove powder acts as an airborne carrier of natural latex proteins, and that exposure to airborne natural rubber latex allergens can be decreased most effectively by reducing both the level of natural latex proteins and the amount of powder on medical gloves.

For those reasons, the FDA suggests a possible ban on powdered medical gloves “at some predetermined time in the future.”³

Guidelines issued by the Arlington Heights, IL-based ACAAI also advise against the use of powdered gloves to prevent HCW sensitization.⁴ (See *HEH*, January 1997, pp. 5-7.) They recommend that latex gloves be used only as mandated by universal precaution standards, and that latex gloves used should be low-allergen and powder-free.

Latex sensitivity can result from inhaling airborne particles of allergenic latex proteins in glove powder, as well as from direct contact with latex-containing products, says **B. Lauren Charous**, MD, chairman of ACAAI’s latex hypersensitivity committee and director of the allergy and respiratory care center at the Milwaukee Medical Clinic, where he treats numerous latex-allergic HCWs.

“As currently marketed, powdered gloves are the source of latex aeroallergens in the workplace,” Charous says. “When you use powdered gloves, you get measurable latex aerosol levels, and when you stop using them, [the aerosol levels] go away. No matter how much anyone with

an economic interest wishes that away, that’s the reality. The way you develop asthma is through aerosol respiration of an allergen, and the only way [HCWs] get [latex-related asthma] is from powdered gloves.”

Physician organization concurs

In a statement issued by the medical center occupational health committee of the ACOEM in Arlington Heights, IL, occupational health physician members also suggest that powder-free gloves would help control latex sensitization among HCWs.⁵

“Studies have shown a reduction of symptoms of allergy correlated with the reduction of airborne NRL protein,” ACOEM states. “The dispersion of allergens in an environment is frequently increased in the presence of particulates. There is no reason to believe the particulates in powder from gloves would not provide a vehicle for the dispersion of NRL.”

Reducing particulates in the workplace would be beneficial, the physicians say, “and the substitution of powder-free gloves has been shown to reduce particulates.”

OSHA’s technical information bulletin summarizes currently available information and contains reasonable recommendations, ACOEM states, adding, “Those who would suggest that OSHA does not have a legitimate responsibility to participate in educational and regulatory activities related to latex gloves do not appreciate OSHA’s mandate.”

References

1. Occupational Safety and Health Administration. *Technical Information Bulletin: Potential for Allergy to Natural Rubber Latex Gloves and Other Natural Rubber Products*. Washington, DC: OSHA; April 12, 1999.
2. National Institute for Occupational Safety and Health. *NIOSH Alert: Preventing Allergic Reactions to Natural Rubber Latex in the Workplace*. DHHS (NIOSH) Pub. No. 97-135. Washington, DC: NIOSH; 1997.
3. Food and Drug Administration, Center for Devices and Radiological Health. *Medical Glove Powder Report*. FDA: Rockville, MD; September 1997.
4. Sussman G, Gold M. *Guidelines for the Management of Latex Allergies and Safe Latex Use in Health Care Facilities*. Arlington Heights, IL: American College of Allergy, Asthma, and Immunology; 1996.
5. American College of Occupational and Environmental Medicine. *ACOEM Statement on OSHA’s Technical Information Bulletin on Allergy to Natural Rubber Latex*. Arlington Heights, IL: ACOEM; 1999. ■

Flu vaccine programs get a shot in the arm

New data suggest immunization cuts absenteeism

Doctors and nurses who receive influenza vaccine every year may have fewer days of work absence and febrile respiratory illness during flu season, according to a new study that supports employee health policies of annual influenza vaccination for health care workers.

The prospective trial found that not only was influenza vaccine effective in preventing infection in HCWs; it also decreased cumulative days of reported febrile illness by 12 days per 100 subjects and reduced days absent by 10 days per 100.¹

Study data also show that unvaccinated HCWs have a 14% risk of developing influenza type A or B infection, and that infection increases the risk of febrile respiratory illness or work absence fourfold.

11 fewer days per 100 vaccinees

Influenza infection among study subjects was associated with an additional 1.5 days of febrile respiratory illness and 0.5 days of work absence during an influenza season. The researchers maintain that their data provide a point estimate of “an absolute vaccine effect of 11 work absence days that were averted per 100 vaccinees and confirm the relative effect of 88% reduction in infection.”

Study participants were 264 healthy physicians, nurses, and respiratory therapists from two large teaching hospitals in Baltimore. They were studied over three consecutive influenza seasons between 1992 and 1995. Mean age was 28.4 years; 57% were women. Vaccines and placebo were administered intramuscularly in October and November 1992, 1993, and 1994. Controls were administered meningococcal vaccine, pneumococcal vaccine, or placebo.

Each week during flu seasons, a study nurse called each participant to inquire about illnesses during the previous week, and recorded specific symptoms of respiratory illness and work absences due to illness. Blood specimens were obtained to check for influenza infection.

Infection rates for flu vaccine recipients and among controls were not altered by their vaccine

experience in the previous year. Controls who received vaccine the previous year were infected at the same rate as controls not vaccinated the year before. The researchers found no evidence of “vaccine carryover,” further supporting their recommendation for annual HCW vaccination.

The study apparently is the first assessment of the effect of influenza vaccine on health care professionals in a randomized, double-blind, controlled trial over three successive flu seasons. While a previous study of healthy adults showed vaccination resulted in a 0.5-day absenteeism reduction during a severe influenza attack season,² other studies specific to HCWs’ absenteeism and infection rates have produced mixed results, the Baltimore researchers point out.

Most employees go unvaccinated

Convincing HCWs to comply with annual influenza vaccination programs is an ongoing struggle for most hospital occupational health professionals. U.S. Centers for Disease Control and Prevention guidelines list influenza as a disease for which immunization is strongly urged and call for health care facilities to offer vaccines before influenza season to all workers who have contact with high-risk patients.³ Nevertheless, an unpublished 1993 CDC survey found that only 17% of hospitals contacted were vaccinating 50% or more of targeted employees.

“This population has shown it is not willing to get vaccinated at very high rates,” says **James A. Wilde, MD**, lead researcher in the Baltimore study, former fellow in pediatric emergency medicine for the first two years of the study at Johns Hopkins University, and former faculty member at Case Western Reserve University, Cleveland, in the emergency medicine and infectious disease divisions during the study’s third year.

One reason for vaccine avoidance is the low influenza attack rate, Wilde says.

“The problem is that even in a severe influenza season, the attack rate is about 20% [of unvaccinated people]. In a mild season, maybe only 2% to 5% get flu,” he says. “That’s the argument that some people give: The risk is not that high, so why should I get a shot every year for an infection that I may get only once in five or 10 years?”

HCWs also worry about vaccine side effects, especially getting influenza itself, “which is not

Innovative approaches raise flu vaccination rates

Multifaceted programs include incentives

Food, prizes, and gift certificates are among the incentives that have increased influenza immunization rates among health care workers at two Midwest hospital systems.

Mobile vaccination carts have been recommended as a compliance-boosting strategy, and that was one means used at Rapid City (SD) Regional Hospital System of Care, where flu vaccination rates more than doubled from 35% in 1993 to 72% in 1997. Occupational health and infection control practitioners attempted to improve compliance rates after discovering that nosocomial influenza rates fell as the number of immunized employees rose, with apparent cost savings.¹

Six cases of nosocomial influenza were found during the 1993 flu season, when 700 of 1,989 employees (35%) were vaccinated. Added patient costs for hospitalization and care were about \$24,300.

Essentials of the 1994 campaign to raise staff flu vaccination compliance were managerial support, educational articles, a walk-in clinic during immunization season, a mobile cart taken to wards and clinic areas, and immunizations given at monthly staff meetings. The chance to win a \$50 gift certificate was an additional incentive. Those immunized also received candy.

Participation rose to 71% (1,463 of 2,073) of employees in 1994. Only one nosocomial influenza infection was detected that year, with an estimated additional cost of \$150. Immunization rates have remained high, peaking at 1,664 of 2,300 employees (72%) in 1997.

At the University of Kentucky (UK) Hospital in Lexington, between 34% and 55% of eligible HCWs have received influenza vaccine during the past four years. To increase that number, an

aggressive campaign was instituted.²

The vaccine manufacturer (Connaught Laboratories, Swiftwater, PA) supplied 100 posters, which were placed in the hospital's most well-traveled areas accompanied by a vaccination schedule. The posters depicted the personal and work-related impact of influenza. Educational materials were distributed through department heads.

The immunization campaign was launched at a two-day infection control fair held in the hospital as part of national Infection Control Week. Banners, decorations, movies, and games taught infection control principles, and the aroma of fresh popcorn attracted passersby. Vaccine was administered at the fair, and recipients were eligible to enter prize drawings and got coupons for free pizza at the cafeteria. The grand prize included two tickets to a UK basketball game and a stadium jacket.

The campaign continued throughout the week, and a makeup date was scheduled two weeks later. Also, a flu vaccine cart was available for nursing units.

Those efforts paid off with a 51% increase in vaccinees over the year before. Total cost of incentives was \$3,568. Organizers estimate that the program will pay for itself if it prevents 17 days of sick leave. They also point to a study showing that immunized adults had 25% fewer upper-respiratory illnesses, 43% fewer lost work days, and 44% fewer physician visits than those not immunized.³

References

1. Boersma B, Rhames T, Keegan JM. Additional cost savings of an effective employee influenza program on prevention of nosocomial influenza (Letter). *Am J Infect Control* 1999; 27:177.
2. Hall KL, Holmes SS, Evans ME. Increasing hospital employee participation in an influenza vaccine program (Letter). *Am J Infect Control* 1998; 26:367.
3. Nichol KL, Lind A, Margolis KL, et al. The effectiveness of vaccination against influenza in healthy, working adults. *N Engl J Med* 1995; 333:889-893. ■

possible," he points out, and about Guillain-Barre syndrome, which resulted from the "swine flu" vaccine in 1976.

"That fear has persisted for the past 25 years, despite the fact that no vaccine since then has been associated with Guillain-Barre syndrome,"

he says. "There is a lot of misinformation, even among physicians."

HCWs often reject vaccination if they were vaccinated the year before and still became ill, Wilde adds, but he explains that many non-flu viruses circulate during influenza season.

“People associate any febrile respiratory illness during influenza season with influenza, but it’s not the same thing,” he says. “Lots of other viruses can give you fever and respiratory symptoms, although the severity of illness from those viruses is not as high as influenza. Because [HCWs] have had that experience, they say they won’t bother to get the flu vaccine because [they think] it doesn’t work.”

Patients’ lives threatened

However, the main reason HCWs don’t get vaccinated is that “it doesn’t seem important to them,” says Wilde, who now is with the department of emergency medicine at the Medical College of Georgia in Augusta. “They don’t worry about it because they figure it’s no big deal if they’re sick for a few days.”

This attitude ignores the crucial patient protection factor, he points out. Influenza may be nothing more than a three- or four-day “nuisance” for a healthy adult, “but if you take it with you to the hospital and infect a cancer or renal dialysis patient, those people can die from the infection.”

Wilde suggests that education efforts directed at HCWs include the results of a 1997 study in long-term care hospitals. It showed that when more than 60% of staff were vaccinated, total patient mortality related to influenza was reduced significantly, while high patient vaccination rates were not associated with significant effects on mortality.⁴

Wilde’s study revealed important findings related to potential influenza transmission from HCWs to patients.

First, study participants were likely to report to work even when experiencing a febrile respiratory illness, a practice that increases the potential for infecting patients. Wilde notes, however, that 75% of study subjects were resident physicians, and that possibly not all HCW groups would be as reluctant to miss time from work.

Second, even if each unvaccinated employee has only a 20% chance of getting flu in a given year, in a medical center with 1,000 employees, 200 employees could contract influenza. That number is significant.

“If those 200 people do get influenza and come to work, they’re going to spread it to a vulnerable population,” he notes. “We found that the people who showed evidence for having influenza based on serology had a much lower number of days of absenteeism than they did days with fever and

illness. So these people were coming to work with fevers, and that means presumably they were spreading influenza to people they were working with and to their patients.”

Data help promote aggressive campaigns

Cumulative days of reported febrile respiratory illness were 41 per 100 subjects in the control group and 29 per 100 subjects in the group receiving flu vaccine. Days of absence were reduced from 21 per 100 subjects in controls to 10 per 100 subjects in flu vaccinees. While that number represents only 1/10 of a day per employee, there potentially are 100 days less absence if 1,000 employees are vaccinated.

“Looking at it from the administrator’s standpoint, 100 days of prevented absence in an influenza season is a pretty good chunk of days” and helps justify more aggressive influenza vaccination programs for employees, Wilde states.

Efforts to increase flu vaccination compliance in HCW populations have been “less than major,” he adds. While many hospitals make vaccine available, merely sending employees e-mail memos to “come and get it” is inadequate, garnering “10% to 50% compliance at best.”

More concerted efforts to increase compliance include taking influenza vaccine carts to employees on their wards, Wilde says, a suggestion also offered by officials of the CDC’s national immunization program. (**See *Hospital Employee Health*, November 1998, pp. 137-139.**) Obtaining vaccine free of charge is an incentive for employees, as well. (**See related story, p. 68.**)

“Our study gives administrators more reason to do more aggressive marketing of the influenza vaccine to their employees,” he says.

References

1. Wilde JA, McMillan JA, Serwint J, et al. Effectiveness of influenza vaccine in health care professionals: A randomized trial. *JAMA* 1999; 281:908-913.
2. Nichol KL, Lind A, Margolis KL, et al. The effectiveness of vaccination against influenza in healthy, working adults. *N Engl J Med* 1995; 333:889-893.
3. Centers for Disease Control and Prevention. Immunization of health care workers: Recommendations of the Advisory Committee on Immunization Practices (ACIP) and the Hospital Infection Control Practices Advisory Committee (HICPAC). *MMWR* 1997; 46(RR-18):1-42.
4. Potter J, Stott DJ, Roberts MA, et al. Influenza vaccination of health care workers in long-term care hospitals reduces the mortality of elderly patients. *J Infect Dis* 1997; 175:1-6. ■

JCAHO decides against employee health standards

Additional examples will guide surveyors

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has decided not to establish separate employee health standards — for now.

A recent meeting of JCAHO's committee on healthcare safety resulted in the same verdict handed down by other Joint Commission advisory committees: no new standards now, but officials of the Oakbrook Terrace, IL-based organization will continue to track employee health issues, remaining ready to re-evaluate the need for standards in the future.

JCAHO has been probing the possibility of establishing employee health standards for the past two years, prompted by increasing regulatory focus on health care worker safety issues, such as the Occupational Safety and Health Administration's (OSHA) proposed tuberculosis standard and the needle safety law recently enacted in California, says **Carole Patterson**, deputy director of the Joint Commission's department of standards. (See *Hospital Employee Health*, December 1998, pp. 146-147.)

"We've been tracking the issues and regulations, and we keep asking the question: Do we need more standards? Do we need new standards? All of our advisory committees have said they don't believe we need standards — at this point, anyway," she states.

Instead, Patterson says plans are to add specific employee health examples to existing standards. For instance, the patient assessment chapter in JCAHO's manual includes an example of how to question patients about latex sensitivity. That patient-related example will serve as a model for a new example to be added in the manual's safety management program standards; however, the

added example will apply to employee health and safety.

New employee health examples will be added to various chapters and existing standards detailed in JCAHO's 2000 manual, which will be released this fall.

Leaders of two hospital occupational health organizations had pled the case for stand-alone employee health standards at the committee on healthcare safety meeting. They were disappointed yet hopeful regarding JCAHO's decision.

"With all the mergers and cost cuttings, employee health departments are getting downsized, staff is getting cut, and our hands are tied," **Kathleen VanDoren**, RN, BSN, COHN-S, executive president of the Reston, VA-based Association of Occupational Health Professionals in Healthcare (AOHP), told JCAHO committee members.

VanDoren maintains that JCAHO standards would go a long way to help employee health practitioners function more effectively.

"We value OSHA, but having an OSHA inspector come in and levy a fine just doesn't bother many hospitals," she states. "They figure they'll just pay the fine and be done with it, but they don't feel that way about the Joint Commission because their accreditation is at stake. [JCAHO] can help us do our job the way we should do it and protect the health care worker."

In a letter to JCAHO earlier this year, the AOHP had asked for standards specifically related to employee health assessments, hazard control, illness and injury management, infection prevention, occupational health information management, education, and health promotion.

VanDoren says she will continue to advocate employee health standards and has offered to work with JCAHO on developing examples.

Geoff Kelafant, MD, MSPH, FACOEM, vice chairman of the Medical Center Occupational Health section of the American College of Occupational and Environmental Medicine (ACOEM) in Arlington Heights, IL, also outlined areas of concern to JCAHO.

COMING IN FUTURE MONTHS

■ Update on HIV postexposure prophylaxis findings

■ Including physicians in employee health policies

■ Managing employees exposed to pertussis

■ Aplisol vs. Tubersol: The controversy continues

■ More states consider safe needle legislation

Employees are "internal customers" who "may also be patients," says Kelafant, who is a consultant to JCAHO's healthcare safety committee. He recommends the addition of examples to the manual's environment of care section to address responsibility for evaluation, treatment, and care of HCWs incurring occupational injury or illness.

The decision to add examples instead of standards "may seem like a backdoor approach," he tells *HEH*, but avoiding a lengthy standard-setting process may actually be more advantageous.

"The [committee's] attitude was positive about the need to look at employee health. The emphasis has not been there in the past, but they are gradually trying to build it into the established framework and immerse surveyors in issues involving employee health. This is a start," he says. ■



Association for Professionals in Infection Control and Epidemiology (APIC) Annual Educational Conference and International Meeting — June 20-24, 1999, Baltimore. Educational opportunities include pre-conferences, post-conference, general sessions, concurrent sessions with tracks, symposium, point/counterpoint, and oral and poster abstracts. Call APIC, Washington, DC, (202) 296-2742, or e-mail: apicinfo@apic.org.

Hazard Control Technologies in Healthcare: Collaborative Strategies for the Next Millennium — Aug. 2-4, 1999, Colorado Springs, CO. Topics include TB control and OSHA standard update, back injuries and ergonomics, latex allergy, blood-borne pathogens, chemical exposures, operating room hazards, and more. Sponsored by the American Conference of Governmental Industrial Hygienists, American Association of Occupational Health Nurses, Association of Occupational Health Professionals in Healthcare, and Association for Professionals in Infection Control and Epidemiology. Call (513) 742-2020, fax (513) 742-3355, or e-mail: mail@acgih.org.

Fourth International Conference on Occupational Health for Health Care Workers — Sept. 28-Oct. 1, 1999, Montreal, Canada. Sponsored by the International Commission on Occupational Health. Topics include infectious diseases, ergonomics, chemical exposures, latex allergies, reproductive hazards, workplace violence, psychosocial issues, and illness/injury monitoring. Call (514) 253-6871, or e-mail: icoh1999@asstsas.qc.ca; Web site: www.asstsas.qc.ca/icoh1999/.

Association of Occupational Health Professionals in Healthcare (AOHP) Annual Conference — Oct. 6-9, 1999, Chicago. Preconference workshops for beginners and advanced practice professionals (physical assessment and biologic, physical, and chemical hazards). General sessions on latex, ergonomics, substance abuse, drug screening, case management, alternative

Hospital Employee Health® (ISSN 0744-6470) is published monthly by American Health Consultants®, 3525 Piedmont Road, Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodical postage paid at Atlanta, GA 30304. POSTMASTER: Send address changes to *Hospital Employee Health*®, P.O. Box 740059, Atlanta, GA 30374.

Subscriber Information

Customer Service: (800) 688-2421 or fax (800) 284-3291. Hours of operation: 8:30 a.m.-6:00 p.m. Monday-Thursday, 8:30 a.m.-4:30 p.m. Friday EST. E-mail: customerservice@ahcpub.com. World Wide Web: www.ahcpub.com.

Subscription rates: U.S.A., one year (12 issues), \$389. Approximately 18 nursing contact hours, \$419. Outside U.S., add \$30 per year, total prepaid in U.S. funds. One to nine additional copies, \$311 per year; 10 or more additional copies, \$233 per year. Missing issues will be fulfilled by customer service free of charge when contacted within 1 month of the missing issue date. **Back issues**, when available, are \$65 each. (GST registration number R128870672.)

Photocopying: No part of this newsletter may be reproduced in any form or incorporated into any information retrieval system without the written permission of the copyright owner. For reprint permission, please contact Karen Wehye at American Health Consultants®. Address: P.O. Box 740056, Atlanta, GA 30374. Telephone: (404) 262-5491.

This continuing education offering is sponsored by American Health Consultants®, which is accredited as a provider of continuing education in nursing by the American Nurses Credentialing Center's Commission on Accreditation. Provider approved by the California Board of Registered Nursing, provider number CEP 10864.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

Editor: **Barrie S. Rissman**, (770) 664-5409.
Group Publisher: **Brenda Mooney**, (404) 262-5403, (brenda.mooney@medec.com).
Executive Editor: **Susan Hasty**, (404) 262-5456, (susan.hasty@medec.com).
Managing Editor: **Coles McKagen**, (404) 262-5420, (coles.mckagen@medec.com).
Senior Production Editor: **Brent Winter**, (404) 262-5401.

Editorial Questions

For questions or comments call **Barrie Rissman** at (770) 664-5409.

Copyright © 1999 by American Health Consultants®. *Hospital Employee Health*® is a trademark of American Health Consultants®. The trademark *Hospital Employee Health*® is used herein under license. All rights reserved.

WEB ALERT



Web site links practitioners to relevant documents

By **Geoff Kelafant**, MD, MSPH, FACOEM

The Medical Center Occupational Health home page (<http://www.occenvmed.net/mcoh>), a project of the Medical Center Occupational Health Section of the American College of Occupational and Environmental Medicine, provides links to recent documents of interest, such as the newly released OSHA Latex Technical Information Bulletin (**see cover story in this issue**), continuing medical/nursing education activities, and other hospital occupational health sites, and features past and current issues of the Medical Center Occupational Health Section newsletter.

There also is access to the Medical Center Occupational Health mailing list and to various guidelines, including the *Guidelines for Employee Health Services in Health Care Facilities*. Lastly, the site includes resources contributed by other hospital employee health professionals, ranging from TB surveillance to drug testing. More contributions are encouraged.

medicine, respiratory standard, hepatitis C, Internet resources, and career development. Cost: \$375 for main conference. Call AOHP at (800) 362-4347.

National Conference on Workplace Safety and Health Training — Oct. 24-26, 1999, St. Louis. Co-sponsored by the National Institute for Occupational Safety and Health (NIOSH), the Occupational Safety and Health Administration, and the National Institute of Environmental Health Sciences. Assisted by the Society for Public Health Education. Contact Greg Loos, EID/NIOSH, 4676 Columbia Parkway, MS-C10, Cincinnati, OH 45226. Phone: (513) 533-8565; fax: (513) 533-8560.

To submit calendar items of interest to hospital employee health professionals in the United States or Canada, send the information to: Calendar Editor, *Hospital Employee Health*, P.O. Box 740056, Atlanta, GA 30374. Items must be submitted at least *three months prior* to the event date or event registration deadline. Please include a contact person's telephone number. ■

EDITORIAL ADVISORY BOARD

Jeanne Culver, RN, COHN
Director, Employee Health Services
Emory University Hospital
Atlanta

Guy Fragala, PhD, PE, CSP
Director, Environmental Health and Safety
University of Massachusetts Medical Center
Worcester, MA

Charlene M. Gliniecki, RN, MS, COHN-S
Director, Employee Health and Safety
Camino Healthcare
Mountainview, CA
Assistant Clinical Professor
University of California, San Francisco

Janine Jagger, PhD, MPH
Director, International Health Care Worker Safety
Research and Resource Center
Associate Professor of Neurosurgery
University of Virginia Medical Center
Charlottesville, VA

Geoff Kelafant, MD, MSPH, FACOEM
Medical Director, Occupational Health Department
Sarah Bush Lincoln Health Center, Mattoon, IL
Vice Chairman and Communications Chairman
Medical Center Occupational Health Section
American College of Occupational and Environmental Medicine
Arlington Heights, IL

Gabor Lantos, MD, PEng, MBA
President, Occupational Health Management Services
Toronto, Ontario, Canada

Wendy E. Shearn, MD, MPH
Occupational Health Physician, Kaiser Permanente
San Rafael, CA

Kathleen VanDoren, RN, BSN, COHN-S
Executive President
Association of Occupational Health Professionals in Healthcare
Reston, VA

Sharon A. Watts, MS, RNCS, ND
Employee Health Nurse Practitioner, University Hospitals of Cleveland
Instructor, Frances Payne Bolton School of Nursing
Case Western Reserve University
Cleveland

CE objectives

After reading each issue of *Hospital Employee Health*, the nurse will be able to do the following:

- identify particular clinical, administrative, or regulatory issues related to the care of hospital employees;
- describe how those issues affect health care workers, hospitals, or the health care industry in general;
- cite practical solutions to problems associated with the issue, based on overall expert guidelines from the Centers for Disease Control and Prevention, the National Institute for Occupational Safety and Health, the U.S. Occupational Safety and Health Administration, or other authorities, or based on independent recommendations from clinicians at individual institutions. ■