



# Hospital Employee Health.

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### Are you ready for smallpox vaccination?

While public health officials consider how many health care workers should receive the smallpox vaccination, hospitals should already begin asking some basic questions, a bioterrorism expert advises. The first: Who is willing to get the vaccine? Hospitals also face myriad other issues because the vaccine contains the live vaccinia (cowpox) virus. Vaccinia can be spread from the injection site until the scab separates from the skin. Employee health professionals also expressed concern about who would be liable for adverse reactions to the vaccine and spread of vaccinia to patients. . . . . cover

### MSD definition still stumps OSHA

The U.S. Occupational Safety and Health Administration has delayed separate record keeping of work-related musculoskeletal disorders for another year while the agency considers the definition of MSDs. OSHA is asking for comment on whether the separate columns for MSDs and hearing loss are necessary and, if so, how MSDs should be defined. In fact, the agency says in its *Federal Register* notice, MSDs may not have a single definition. Meanwhile, OSHA moved forward with a new rule on hearing loss that focuses on overall hearing loss . . . . . 101

### Should FDA ban conventional sharps?

The Food and Drug Administration is asking for comments on a petition asking the agency to ban certain conventional sharps and to set design criteria for safety devices. The agency, which has banned a device only once before in its history, also is asking for comments on other actions that might be appropriate . . . . . 102

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## Will your employees be willing to take the smallpox vaccine?

*Ask now as you prepare for vaccination*

**H**ospitals should start preparing for smallpox vaccination now, even before public health officials have worked out the details, a leading bioterrorism expert tells *Hospital Employee Health*.

Employee health professionals should set priorities for who would receive the vaccine, screen employees for risk factors for adverse reactions, and even ask health care workers if they would be willing to come to work during a smallpox outbreak, says **Michael Bell, MD**, a medical epidemiologist who was the lead author for the Centers for Disease

## Prevent fines, needlesticks: Our experts will tell you how

*OSHA slapping down sharps fines at record pace*

**F**ederal regulators are turning up the heat on needle safety compliance, increasing inspections and issuing more than a million dollars in fines in less than a year.

Emboldened by new federal laws, the Occupational Safety and Health Administration (OSHA) has dramatically stepped up enforcement of needle safety provisions. In a flurry of activity between July 2001 and May 2002, OSHA issued a staggering 1,876 citations for those who still haven't gotten the message that needle safety is now the law of the land. These unfortunate facilities were slapped with \$1.3 million in fines, and

*(Continued on page 103)*

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**No excuses: HCWs should get flu vaccine**

With a supply of flu vaccine that will be higher than ever, more than 90 million doses, there's no excuse for poor vaccination coverage of health care workers, public health officials say. According to the 2000 National Health Interview Survey, just 38% of health care workers receive the annual flu vaccine. Campaigns to immunize health care workers should begin in October and place a priority on workers who care for high-risk patients: those who are 65 years old or older, who have chronic conditions such as heart disease or diabetes, or who are immune-compromised, according to the Centers for Disease Control and Prevention in Atlanta . . . . . 104

**New hire dilemma: Should you screen for HCV?**

Some hospitals have begun screening all newly hired employees for hepatitis C, citing the treatment advantages of early detection and the protection of the hospital against future workers' compensation liability. Whether HCV screening of new employees makes sense for your hospital depends on the prevalence of the disease in the surrounding community and the structure of state workers' compensation laws, employee health experts say . . . . . 105

**New directors take helm of CDC and NIOSH**

Julie Gerberding, MD, MPH, a specialist in infectious diseases who helped lead the CDC's response to anthrax became the CDC's first female director in July. She replaces Jeffrey Koplan. The National Institute for Occupational Safety and Health also has a new director: John Howard, MD, MPH, JD, LLM. . . . . 108

Inserted in this issue:

**Bioterrorism Watch**

**Fear of airborne smallpox clouds vaccination debate**

According to a top bioweapons scientist, the former Soviet Union may have developed a method to spread a vaccine-resistant strain of the deadly virus through the air over large areas . . . . . 9

**COMING IN FUTURE ISSUES**

- Survey reveals trends in hospital employee health
- Nitric oxide: New uses create new respiratory hazards
- Can't do it all? Set priorities for employee health
- Will OSHA's nursing home crackdown impact hospitals?
- Tools for educating workers on bioterrorism

Control and Prevention's (CDC) *Bioterrorism Readiness Plan: A Template for Healthcare Facilities*. "I would not wait until the last minute and try to figure out whom to vaccinate," advises Bell, who is now chief of the epidemiology unit in CDC's special pathogens branch. "I would be ready."

In midsummer, speculation arose that the smallpox vaccination plan could ultimately involve as many as 500,000 health care workers — considerably more than the 10,000 to 15,000 initially suggested. However, CDC emphasized that it was still soliciting input before making a recommendation to Health and Human Services Secretary Tommy Thompson.

The Association of Professionals in Infection Control and Epidemiology (APIC) and others have raised serious concerns about the vaccination planning.<sup>1</sup> For example, the vaccine contains live vaccinia (cowpox) virus that can be transmitted to others until the vaccination site heals. Will vaccinated health care workers face work restrictions? Will some need to be furloughed? How will vaccinated workers be monitored?

"There are very serious complications that will happen if those concerns are not addressed before [vaccination is] initiated," says **Judith English, RN, MSN, CIC**, chair of APIC's Bioterrorism Work Group and director of infection control at the National Naval Medical Center in Bethesda, MD. "Those types of things need to be documented in the guidelines before they're issued."

In a letter to the advisory panel, APIC and other infection control organizations supported a "tiered approach" to vaccination that gives priority to first-responders and those who triage or diagnose patients, such as emergency departments and free-standing clinics. (A copy of the letter is available at [www.apic.org/workgroups/btwg/6-13-02FinalSmallpoxLetter.doc](http://www.apic.org/workgroups/btwg/6-13-02FinalSmallpoxLetter.doc). **For excerpt, see box, p. 100.**)

In the letter, the infection control groups also recommended beginning vaccination with a pilot study group and stressed that vaccination and follow-up should occur outside the hospital setting.

While hospitals have conducted inservice training on smallpox — as well as other potential biological and chemical terrorism agents — many are adopting a cautious approach on the topic of vaccination.

"We haven't even talked about vaccination here yet, and I don't expect we will until we see something a little more forceful or consistent from the powers that be," says **Geoff Kelafant, MD, MSPH, FACOEM**, medical director of the occupational health department at the Sarah

## Adverse Reactions

- ✓ **Inadvertent inoculation:** Spreading of the vaccinia virus to other parts of the body, such as the face, eyes, or nose, through hand contact with the inoculation site.
- ✓ **Erythematous or urticarial rashes:** Can occur within 10 days of inoculation and usually resolve within two to four days.
- ✓ **Eczema vaccinatum:** Localized or systemic spread of vaccinia in people with eczema or a history of eczema.
- ✓ **Generalized vaccinia:** A vesicular rash that usually requires minimal treatment, except among immune-compromised individuals.
- ✓ **Progressive vaccinia (vaccinia necrosum):** Progressive necrosis in the area of vaccination, often with metastatic lesions. This has occurred almost exclusively among people with cellular immunodeficiency.
- ✓ **Postvaccinial encephalitis:** A rare but potentially fatal complication.

Source: Vaccinia (smallpox) vaccine recommendations of the Advisory Committee on Immunization Practices (ACIP), 2001. *MMWR* 2001; 50(RR10);1-25.

Bush Lincoln Health Center in Mattoon, IL. Kelafant is chairman of the medical center occupational health section of the American College of Occupational and Environmental Medicine in Arlington Heights, IL.

### *Start with basic preparedness*

Preparing for smallpox vaccination actually begins with basic bioterrorism preparedness: educating staff and designating priority services, Bell says. “[Hospitals should determine] what services you would need to prioritize to make sure you can maintain safe and functional health care in the event of an emergency.” Those are the personnel who should be on the top of the list for smallpox vaccine, he suggests.

Housekeeping, food services, and engineering should be a part of that discussion, he says. In the event of an outbreak, “You don’t want to find out that the kitchen is shut down and no one is taking out the garbage,” he says.

The CDC says that at least 209 million new doses of smallpox vaccine will be available by the end of the year or early 2003. That allows for widespread coverage, although the Advisory Committee on Immunization Practices recommended limited

vaccination of key personnel at designated smallpox treatment hospitals. (See *HEH*, August 2002, p. 85.)

“There’s not clarity yet on whether we’re talking about a skeleton crew for emergency response or coverage of as much health care personnel as possible,” Bell says. “I would prepare for both.

“I would start out by identifying the key members that you really need to have vaccinated ahead of time,” he says. “First, find out if those people are willing to be there. If they’re willing to be there, [determine] if they’re willing to take the vaccine. That’s an important list to make.”

Employee health professionals should discuss the possible adverse effects from smallpox vaccines and, at the end of the inservice program, use a screening tool to gather basic information from employees, Bell suggests.

Key questions include:

- **Would you be willing to work during a smallpox outbreak?** (Some employees honestly may state that they would stay home out of concern for their families.)
- **Would you be willing to have the smallpox vaccine?**
- **Have you ever had the smallpox vaccine?** Did you have an adverse reaction? (Previously vaccinated individuals who did not have a reaction have a lower likelihood of adverse effects from re-vaccination.)
- **Do you or anyone in your family have an immune-compromising condition,** such as HIV, organ transplant, or other immune deficiency?
- **Do you or anyone in your family have eczema,** a history of eczema, or other exfoliative skin conditions such as atopic dermatitis? (People with those skin conditions have a greater risk of developing eczema vaccinatum, “a localized or systemic dissemination of vaccinia virus.”<sup>2</sup>
- **Are you or could you be pregnant?** (Vaccinia vaccination isn’t recommended for nonemergency use in pregnant women.)
- **Are you allergic to vaccine components?**

(The current vaccinia vaccine contains trace amounts of polymyxin B sulfate, streptomycin sulfate, chlortetracycline hydrochloride, and neomycin sulfate.)

You’ll need to ask these questions again when vaccination actually occurs, Bell concedes. But you’ll have a clearer picture of who can and will be vaccinated. Meanwhile, you can use the same questionnaire to capture other employee health information.

For example, you can ask if they have received

## Vaccination plans raise host of questions

In a letter to the Advisory Committee on Immunization Practices, several national infection control organizations raised concerns about how the vaccination and follow-up would occur, including these:

- Health care provider's occupational health function should include documentation of history of smallpox vaccination, history of any contraindications for vaccine, as well as a history of varicella immunization or disease.
- Simple, effective screening tool for high-risk indicators is necessary, if mass vaccination programs are to occur.
- Will vaccine used be new stock or reserved stock that must be diluted? Who will be responsible for the dilution?
- What personal protective equipment is required for dilution and/or administration of smallpox vaccine?
- What is the plan/priority for vaccination? Will previously vaccinated people be vaccinated after never-vaccinated individuals?
- There should be guidelines/criteria developed regarding pregnant women, immunosuppressed individuals, or those with dermatological conditions that address risk vs. benefit following exposure. Consideration should be given to the conditions under which public health concerns and the need to protect all citizens from smallpox change the recommendation for not immunizing these groups.
- Current recommendations are to recheck six to eight days post-vaccination and record response as major or equivocal. How will this be done?
- Specific recommendations regarding revaccination of equivocal or nonresponders will be needed.

Source: Association for Professionals in Infection Control and Epidemiology, Letter to the Advisory Committee on Immunization Practice, June 13, 2002.

other vaccinations, such as influenza or varicella.

"I would use it as a chance to make sure the records for my facility were up to date and I had a clear understanding of who was vaccinated for what," Bell says. "It's only a couple of extra questions, and as long as you've got them, it's a great opportunity."

Employee health professionals have some questions of their own about smallpox vaccination. The

vaccinia virus can shed from the vaccination site until the scab separates from the skin, anywhere from four to 14 days after vaccination. That presents a risk of spread to patients.

The furlough of vaccinated employees could be a significant burden for hospitals. Are bandages and other protections sufficient to allow workers to continue to work with restrictions? What should those restrictions be? How should they protect the vaccination site?

"Whoever was vaccinated, she should be compensated for her lost days from work," remarks **Cheryl Peterson**, RN, nurse and senior policy fellow at the American Nurses Association in Washington, DC. "No cost burden should be borne by the health care worker, and there needs to be significant and close follow-up [after vaccination]."

If a patient contracts vaccinia from a vaccinated health care worker, who is liable? If the employee suffers from a serious adverse reaction to the vaccine, is that a workers' compensation case?

"I think there are some huge liability issues that haven't been addressed," says **Bruce Cunha**, RN, MS, manager of employee health and safety at the Marshfield (WI) Clinic.

Hospitals have some limited experience in dealing with similar issues regarding herpes zoster (shingles), he notes. Recently, when an employee returned to work with zoster, Cunha told her she could not return to the oncology department until the scabs crusted over and dried up.

"We have CDC guidelines [on zoster] that give you some clues [as to how they might handle vaccinia vaccination]," he says. "Most people can work; you just can't have access to high-risk patients."

Considering the high-risk populations in the emergency department, intensive care, transplant, oncology, HIV, burn units, neonatal, and pediatric departments, Cunha adds: "That eliminates a lot of your employees."

## References

1. Letter to the Advisory Committee on Immunization Practices from the Association for Professionals in Infection Control and Epidemiology, the National Foundation for Infectious Diseases, the Society for Healthcare Epidemiology of America, the Infectious Diseases Society of America, and the Community and Hospital Infection Control Association-Canada; June 13, 2002.

2. Vaccinia (smallpox) vaccine recommendations of the Advisory Committee on Immunization Practices (ACIP), 2001. *MMWR* 2001; 50(RR10):1-25. ■

# OSHA delays new MSD record keeping — again

*Should MSDs have more than one definition?*

Separate reporting of work-related musculoskeletal disorders (MSDs) has been delayed at least another year while the U.S. Occupational Safety and Health Administration (OSHA) decides how those injuries should be defined and whether the record keeping should be changed at all.

In a question debated in numerous ergonomics hearings and forums, OSHA once again is asking, “What is an MSD?” Is it an injury caused by a single trauma, such as a back injury that occurs when lifting a patient? Is it extremity pain that develops over time after cumulative trauma? Can one definition cover both? **(See box, below.)**

OSHA’s statements in the *Federal Register* notice hint that the agency may reject a single definition of MSDs and drop the idea for a special column to track them. In fact, that position corresponds with OSHA’s “comprehensive approach” to ergonomics, which avoids broad definitions and focuses on industry-specific, voluntary guidelines.

“OSHA found that no single definition of ‘ergonomic injury’ was appropriate for all contexts,” the agency said in the notice.<sup>1</sup> “The agency stated that it would work closely with stakeholders to

develop definitions for MSDs as part of its overall effort to develop industry- or task-specific guidance materials.”

Worker advocates accused OSHA of trying to minimize the problem of MSDs by changing the definition. “Labor Secretary [Elaine] Chao is going to have the most effective MSD program the country has ever seen by redefining the problem away,” says **Bill Borwegen**, MPH, occupational health and safety director of the Service Employees International Union (SEIU). “It’s tragic, really. Now we’re not going to have the information and ammunition to spend the resources to make the problem really go away rather than to make it go away artificially.”

“We’ve been dismayed by that move to not count MSDs in a straightforward way,” says **Karen Worthington**, MS, RN, COHN-S, occupational safety and health specialist for the American Nurses Association in Washington, DC. “It continues to feel like delay tactics and tactics that will undermine finding the problem.”

In the same *Federal Register* notice, OSHA released a new rule for the recording of hearing loss that focuses on overall hearing deficiency. **(See box, p. 102.)** The MSD and hearing-loss provisions were delayed when OSHA released its final record-keeping standard, which became effective this year. New record-keeping rules clarified what is meant by “first aid only” and require the reporting of all needlesticks. **(See *Hospital Employee Health*, December 2001, p. 138.)**

The record-keeping rule provided for separate columns to collect information on MSDs and work-related hearing loss to make those injuries easier to track. OSHA still is unsure if those additional columns are necessary and is asking for comment. Employers would be required to report the injuries but would not need to identify them separately as MSDs and hearing-loss cases.

“If the agency decides there’s no need for a column, we don’t need a definition [of MSDs],” explains **Jim Maddux**, a statistician with OSHA’s directorate of safety standards. “If we decide the column is useful, we’ll use the old definition or adopt a new one.”

Every year, the Bureau of Labor Statistics (BLS) releases data on MSDs that involve time away from work, including details about body parts affected (back, upper extremity, etc.) and industry-specific data. BLS compiles that data from surveys of about 200,000 employers.

With the record-keeping change, BLS would have additional information on reportable injuries

## What is an MSD?

The Occupational Safety and Health Administration currently defines musculoskeletal disorders (MSDs) as disorders of the muscles, nerves, tendons, ligaments, joints, cartilage, and spinal discs. MSDs do not include disorders caused by slips, trips, falls, motor vehicle accidents, or other similar accidents. Examples of MSDs include:

- Carpal tunnel syndrome
- Rotator cuff syndrome
- de Quervain’s disease
- Trigger finger
- Tarsal tunnel syndrome
- Sciatica
- Epicondylitis
- Tendinitis
- Raynaud’s phenomenon
- Carpet layers knee
- Herniated spinal disc
- Low back pain

## Overall hearing loss triggers OSHA reporting

### *Final rule sets a standard of 25 dB*

In a new record-keeping provision that becomes effective on Jan. 1, 2003, the Occupational Safety and Health Administration (OSHA) states that hearing loss is recordable if the employee has a hearing level of 25 dB or greater above audiometric zero and a work-related change of 10 dB averaged over the frequencies 2,000; 3,000; and 4,000 Hz.

"[The rule] ensures there is a significant amount of hearing loss with your employers and that you have a significant amount of hearing loss overall," says **Jim Maddux**, a statistician with OSHA's directorate of safety standards. "It makes sure each hearing loss is truly an abnormal condition."

Hearing from audiometric zero to 25 dB is considered normal, says Maddux. The previous criteria recorded shifts of 25 dB.

The rule also allows the employer to include an adjustment for hearing loss due to aging and to seek the advice of a physician or licensed health care professional to determine if the hearing loss was work-related. In its final rule, OSHA provides a table that can be used to adjust audiogram results. ([www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9741&p\\_text\\_version=FALSE](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9741&p_text_version=FALSE).)

"The 2001 [record-keeping] rule presumed that hearing losses were work-related if you were working in a noisy environment," Maddux says.

Employers also may retest the worker's hearing within 30 days to make sure the hearing loss is persistent, the rule states.

*(Editor's note: The final rule can be accessed from the July 1 entry of [www.osha.gov/wutsnew.html](http://www.osha.gov/wutsnew.html).)* ■

that do not involve time away from work, says **William Weber**, MS, BLS assistant commissioner for safety health and working conditions. "It would give a more complete picture of the total problem of MSDs."

At the same time, employers would have to decide whether to check the MSD box, he notes. "That does depend on the employers understanding of the definition of MSDs and their ability to apply that definition consistently," he says.

In the long run, employers are the ones who would actually benefit from the new record-keeping requirement, asserts **Guy Fragala**, PhD, PE, CSP, director of environmental health and safety at the University of Massachusetts

Medical Center in Worcester.

BLS data (available at [www.bls.gov/iif/osheval.htm](http://www.bls.gov/iif/osheval.htm)) provides national benchmarks, but a separate reporting of MSDs on the OSHA 300 would make it easier for employers to track their own injuries and to monitor the effectiveness of interventions, he says. "Musculoskeletal disorders are an important occupational injury problem. So if we can develop record-keeping systems that will help us better understand where problems are occurring, I think that will be useful. It's worth the effort to review the system and come up with a mechanism, which will allow us to track our experience in this area."

*[Editor's note: OSHA is accepting comments on the MSD and hearing-loss record-keeping issues through Aug. 30. Written comments must be submitted in triplicate to the Docket Office, Docket R-02B, Room N2625, Occupational Safety and Health Administration, U.S. Department of Labor, 200 Constitution Ave. N.W., Washington, DC 20210. Fax: (202) 693-1648. Electronic comments may be submitted to: <http://ecomments.osha.gov/>. Due to security-related problems in receiving regular mail service in a timely manner, OSHA is requesting that written comments be hand-delivered to the Docket Office or sent by Express Mail or other overnight delivery service or faxed.]*

### Reference

1. 67 Fed Reg 44,037 (2002). ■

## FDA seeks comment on banning of some sharps

### *Agency asks for device data, other options*

If a federal law mandates the use of safety sharps devices, should conventional versions be banned? The Food and Drug Administration (FDA) is soliciting comment on that question and others posed by the Service Employees International Union (SEIU) in Washington, DC, and the consumer group, Public Citizen, in a petition to the agency.

While banning products is extremely rare (the FDA has done it only once before), the agency expressed an interest in considering other steps it might take to reduce needlesticks. Its *Federal Register* notice "invites interested persons to submit additional data and information to support these

actions or any other action that the commenter may consider appropriate.”<sup>1</sup>

The SEIU suggested a regulatory standard with mandatory performance criteria for safety devices and labeling of conventional syringes, warning that they should not be used for standard blood draws. The FDA has previously issued safety alerts and conducted educational efforts. (See *Hospital Employee Health*, January 2002, p. 6.)

“It’s a point in time when we want to get different opinions and different ideas,” explains **Timothy Ulatowski**, MS, director of the division of anesthesiology, infection control, general hospital, and dental devices in the FDA’s office of device evaluation in Rockville, MD. “There’s more than one way to respond to the broader public need and desire out there.”

One option, he says, would involve a voluntary standard developed through the American National Standards Institute, the American Society of Testing and Materials, or the Association for the Advancement of Medical Instrumentation. Such voluntary standards are created through a consensus process that includes industry representatives and can have a strong, swift impact on device design, Ulatowski says.

FDA recognition of the voluntary standard provides benefits to manufacturers, encouraging them to comply, while the development of regulatory standards can become mired in legal obstacles, he notes.

“If we have accepted a standard, it greatly reduces the time for review and approval [of products],” Ulatowski says. “It makes it easier for them to market the product as well as [for] the international marketing of the product.”

While the SEIU would welcome any moves towards ensuring the manufacture of safer devices, the union will continue to push for stronger action to eliminate conventional devices, says **Bill Borwegen**, MPH, SEIU’s occupational health and safety director.

“We feel we have a strong case here,” he says. “It behooves the FDA to demonstrate to us why people should be able to continue to use these products when safer products are on the market that serve the same purpose, provide as good or better patient care, and protect health care workers.

“We have a nationwide epidemic of needlestick injuries,” he says. “It’s not going to go away until we get these products off the market.”

Just how many conventional devices, such as IV catheters and butterfly blood collection devices, are

*(Continued from cover)*

contrary to popular belief, only about 20% of the expensive inspections were prompted by an employee complaint.

With random visits a possibility, you need to know the latest regulatory information to ensure you can pass muster with OSHA while protecting your employees and patients. To keep you up to date, American Health Consultants offers the audio conference: **Sharps Safety Compliance: How to Avoid OSHA Citations and Costly Fines**. Slated for Wednesday, Oct. 23 from 2:30 to 3:30 p.m., ET, our program will feature practical handouts and guidance along with the answers to some of your most pressing questions. OSHA expert Katherine West, BSN, MSEd, CIC, veteran infection control consultant at Infection Control/Emerging Concepts in Manassas, VA, will review the latest OSHA requirements and give you the inside tips necessary to pass any future inspection with flying colors. This conference is critical information for infection control professionals and employee health professionals, ED managers, physicians, nurses, risk managers, compliance directors, case managers, home health professionals, and same-day surgery managers.

In addition, we will feature a clinical expert on medical devices to help ensure you know if safety devices are available for your particular patient and procedure needs. Bruce E. Cunha, RN, MS, COHN, manager of employee health and safety at Marshfield (WI) Clinic, has 24 years working experience on the front lines of occupational health and safety.

Cunha will provide vital insight on what practitioners can do to ensure safety for clinical procedures for which there are currently no safety needles available. He is an expert in this seldom addressed but critical area, which is becoming increasingly important as the nation’s health facilities continue the transition from conventional to safety-designed needles.

Protect workers, patients, and your budget. One needlestick or fine avoided will more than pay for this conference and several in the future. To sign up, call (800) 688-2421 and mention effort code: **62761**. The facility fee is \$299, which includes free CE or CME for your entire staff, program handouts and additional reading, a convenient 48-hour replay, and a conference CD. Don’t miss out. Educate your entire facility for one low fee. ■

still in use? What is the impact of the Needlestick Prevention and Safety Act and the revised blood-borne pathogen standard?

The answers await completion of studies by researchers. The latest published data are from 1999, and needle safety experts say considerable progress has been made since then.

“Looking at the market data that I’ve seen from the year 2001, it’s clear that there was a massive acceleration that even predated the full implementation of the [federal] law [which was passed by Congress in 2000],” says **Janine Jagger**, PhD, MPH, director of the International Health Care Worker Safety Center at the University of Virginia in Charlottesville.

“We see an intent to comply with the law, but we also see that it’s not a completed fact yet,” says Jagger, noting that compliance is lower in nonhospital settings. “The continued pressure on the issue is totally justified and important.”

In its *Federal Register* notice, the FDA cited a lack of detailed data. Information from sources such as EPINet, a database of 21 health care facilities on the East Coast and Pacific Northwest regions, provide statistics on overall needlesticks and device types. But the FDA noted that the SEIU/Public Citizen petition didn’t include data on which specific devices were involved in needlesticks, how many had been in use during the data collection period, and the design criteria of those devices.

“In the absence of such information about specific devices, FDA was unable to conclude that any particular device presented a “substantial deception or an unreasonable and substantial risk of illness or injury,” the agency stated. “FDA invites interested persons to submit data and information that would provide insight on the basis for banning one or more of these devices.”

In fact, the link between specific devices and needlesticks is particularly hard to determine. A study by the Sharps Injury Control Program of the California Department of Health Services in Oakland found that only 24% of those reporting needlesticks knew the brand of the device they were using. (See *HEH*, April 2002, p. 41.)

The FDA actions also may be complicated by the wide variety of sharps devices and uses of those devices.

“Each of the product categories has to be looked at in great detail to be sure that a broad-brush approach does not overlook some very limited applications of that device category for which there is no safety alternative,” Jagger says. “There are still pockets of specialized procedures for which there are no applicable alternatives.”

Jagger notes that FDA scrutiny could actually promote safety measures in some of the smaller “niche” categories. “I think this is an excellent occasion for us to do that in-depth analysis which also will provide further incentive to get complete coverage even for those limited applications.”

Ultimately, the greatest impact on needle safety will continue to come through enforcement by the U.S. Occupational Safety and Health Administration (OSHA), Ulatowski says. “The OSHA rule has a dramatic impact.

“When Congress came out with the needlestick safety act, they could have pointed to FDA to take some action, but they didn’t. They pointed to OSHA as the primary health care worker protection agency to take action under their statutory obligations.”

(Editor’s note: A copy of the Federal Register notice is available at [www.fda.gov/cdrh/fedregin.html](http://www.fda.gov/cdrh/fedregin.html).)

## Reference

1. 67 *Fed Reg* 41890 (2002). ■

# No excuses for failing to get influenza vaccine

*CDC reports supply is higher than ever*

**W**ith the supply of influenza vaccine at its highest level ever, public health officials have turned their attention to raising the disappointingly low vaccination rates of health care workers and other targeted groups. Overall, just 38% of health care workers receive the annual flu vaccine, according to the 2000 National Health Interview Survey.<sup>1</sup>

Campaigns to immunize health care workers should begin in October and place a priority on workers who care for high-risk patients — those who are 65 or older, who have chronic conditions such as heart disease or diabetes, or who are immune-compromised, according to the Centers for Disease Control and Prevention (CDC) in Atlanta.

However, immunization efforts should continue throughout the flu season, to December and beyond, and hospitals should seek widespread coverage of health care workers, says **Carolyn Bridges**, MD, medical epidemiologist in the CDC’s influenza branch. This year, manufacturers expect to provide more than 90 million doses of influenza vaccine without the substantial delays that have occurred in prior years.

“Not only are health care workers probably exposed more to people who have influenza, they also have the potential to transmit influenza to people who could get very sick if they get flu,”

Bridges says. The CDC estimates that influenza leads to more than 110,000 additional hospitalizations each year. In addition to education, she suggests “taking the vaccine to the workers at every opportunity and making it convenient.”

In a recently released document, *Detection and Control of Influenza Outbreaks in Acute Care Facilities*, the CDC offers strategies for improving vaccination rates of health care workers:

- Use mobile carts to bring the vaccine to workers in the units, at conferences and meetings, or even in the lunch area.
- Provide educational sessions on influenza and offer the vaccine at the end of each session.
- Report vaccination levels by unit and reward and/or recognize units that show significant improvement or have the highest rates.
- Provide reminders with the time and date for vaccination, especially targeting employees with close patient contact.

Last year’s flu season was categorized as mild to moderate, with a peak in mid-to-late February. It was the second year of a relatively mild flu season. But CDC officials cautioned that it isn’t possible to predict how severe the flu will be this season. “People do tend to become more complacent when you’ve had a couple of mild years,” says **Lynnette Brammer**, MPH, an epidemiologist in the influenza branch. “We can’t count on that to hold out.”

This year’s vaccine includes A/Moscow/10/99 (H3N2)-like, A/New Caledonia/20/99 (H1N1)-like, and B/Hong Kong/330/2001-like antigens, the CDC reported.

*(Editor’s note: More information on influenza as well as periodic updates are available at [www.cdc.gov/nip/flu](http://www.cdc.gov/nip/flu). Detection and Control of Influenza Outbreaks in Acute Care Facilities is available at [www.cdc.gov/ncidod/hip/INFECT/FluBook2001.pdf](http://www.cdc.gov/ncidod/hip/INFECT/FluBook2001.pdf). Basic flu information useful for patient education is available at [www.cdc.gov/nip/Flu/Public.htm](http://www.cdc.gov/nip/Flu/Public.htm).)*

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## Should you screen all new employees for HCV?

*Answer may differ based on community rates*

A longtime employee develops symptoms of a liver disease and tests positive for hepatitis C. Although there has been no recent needlestick, she insists that the exposure was occupational. After all, testing for HCV after needlesticks only recently became routine. There’s another risk factor, a previous blood transfusion, but the occupational risk still leaves you liable. Your hospital, self-insured for workers’ compensation, pays all her bills for a liver transplant and lost wages. The total cost tops half a million dollars.

That nightmare scenario has propelled some hospitals to begin screening new employees for hepatitis C. However, such routine screening remains controversial, as some employee health professionals say it is not cost-effective.

Whether HCV screening of new employees makes sense for your hospital depends on the prevalence of the disease in the surrounding community and the structure of state workers’ compensation laws, employee health experts say.

“Every state is a little different. According to case law in Florida, the burden of proof is really on the employer when it comes to hepatitis B and hepatitis C,” says **JoAnn Shea**, MSN, ARNP, director of employee health and wellness at Tampa (FL) General Hospital. “Because health care workers have a significant occupational risk, it would be difficult for us to prove they didn’t acquire it here.”

Since Tampa General began screening new employees for HCV in 1995, 85 have tested positive. In most cases, the employees proceeded into the positions for which they were hired. In a few cases involving surgical technicians and surgical nurses who perform exposure-prone cases, a hospital committee determined that their employment in that position would compromise patient safety, Shea says.

Uncovering unknown cases of HCV is a double-edged sword. While it may burden an employee with job restrictions, it also can save an employee’s life. “Hepatitis C is insidious. You don’t know you have it,” says **Gary Rischitelli**, MD, JD, MPH, assistant scientist at the Center for Research on Occupational and Environmental Toxicology at Oregon Health & Science University in Portland.

“A lot of people don’t recall they had any risk factors.”

Early treatment and changes in lifestyle, such as limiting alcohol intake, can dramatically impact the course of the disease, Rischitelli notes.

Yet for some hospitals, screening hundreds of new employees for the rare case of hepatitis C just doesn’t make sense. Others offer screening on a voluntary basis for employees who want to know their HCV status. Employee health professionals at three hospitals in different geographic regions shared their perspectives on HCV screening with *Hospital Employee Health*.

Four nurses at Tampa General are being treated for hepatitis C, which is presumed to be occupationally acquired. One had never even reported an exposure, but claimed unreported needlesticks and the occupational exposure cannot be ruled out.

Meanwhile, the number of patients with hepatitis C is growing steadily. Last year, 41 source patients tested positive for HCV after an employee exposure, compared with 19 in 1997.

Those facts, along with the reported benefits of early treatment,<sup>1</sup> influenced the hospital to begin testing all new hires for hepatitis C. Since 1995, the hospital has had 85 new employees test positive during pre-employment screening.

Tampa General now conducts 500 to 600 HCV screening tests a year for employees who could have a bloodborne-pathogen exposure, including housekeeping staff, nurses, and surgical techs. The expense of the screening is outweighed by the potential costs of lifelong care for an HCV patient. “You can spend 10 times on one case what we spend on screening people,” Shea notes.

Yet there is a humanitarian aspect, as well, she points out. “We’ve identified many people within the group in which treatment is recommended, and they never knew they had hepatitis C,” she says. “Some of them may be one of the fortunate ones to clear the virus with treatment.”

Current employees receive an HCV test at baseline in the case of a bloodborne pathogen exposure, or they can request a test if they want to know their HCV status. In addition to the 85 employees who were positive on hire, Tampa General has identified 43 current employees with hepatitis C following baseline exposure testing or via routine visits. “We believe [screening] has given us the ability not only for early identification so they can get early intervention, but I do believe we protected the hospital against some future liability,” Shea says.

## CE questions

9. According to the Centers for Disease Control and Prevention, which of the following is a contraindication of smallpox vaccination?
  - A. working with high-risk patients
  - B. having a history of chickenpox
  - C. latex allergy
  - D. having eczema or a history of eczema
10. OSHA delayed new record-keeping requirements on musculoskeletal disorders because:
  - A. The agency isn’t sure they’re work-related.
  - B. The agency is considering how MSDs should be defined.
  - C. The agency determined MSDs are not a distinct group of injuries.
  - D. MSDs no longer need to be recorded on OSHA logs.
11. In the upcoming influenza season, CDC recommends immunization of health care workers begin in:
  - A. September
  - B. October
  - C. November
  - D. No date was recommended.
12. Hospitals are taking different approaches to screening newly hired workers for hepatitis C because:
  - A. Communities differ in the prevalence of the disease and the structure of workers’ compensation laws.
  - B. Some state laws prohibit the screening.
  - C. Screening places the hospital at risk for medical claims.
  - D. Most workers already know whether they have hepatitis C.

**Answers:** 9. D; 10. B; 11. B; 12. A

The prevalence of HCV among health care workers is roughly the same as the general population (1% to 2%).<sup>2</sup> Anytime you conduct widespread screening on a low prevalence population, you will end up with false positives, notes **Anthony Burton, MD, MPH**, medical director of employee health services at St. Joseph Mercy Health System in Ann Arbor, MI.

Each positive result requires confirmatory testing, Burton says. “You’re looking at antibodies, you’re not looking at infection. If you do confirm that the person has hepatitis C antibodies, you

don't know if [it's an] ongoing infection or if it's a cleared infection. That requires further testing."

The low likelihood of detecting cases of hepatitis C and the burden — emotionally for the employee and financially for the hospital — of dealing with false positives has convinced Burton that widespread screening isn't beneficial. Instead, hospitals could provide an information sheet outlining the risk factors for HCV and suggesting that new employees take a screening test or be tested by their personal physicians.

"If you reserve hepatitis C testing for those who have risk factors, you increase the positive predictive value of the test," he says.

You also need to have a clear plan of what you will do if cases of hepatitis C are detected. "You've now uncovered a problem," he says. "You need to make sure they get follow-up."

**Georgia Thomas, MD, MPH**, director of employee health at the University of Texas M.D. Anderson Cancer Center in Houston, recalls two unrelated phone calls from nurses who had worked at the center in the 1970s. They both had hepatitis C, and they both recalled needlesticks that could have been the source of infection.

Thomas found the old records, but still couldn't help them determine the source of their infection. HCV testing wasn't available at the time of their exposures. But the calls made her think about the hidden cases of HCV and the impact on employees' lives.

Now, the cancer center tells new employees at orientation that they can receive voluntary tests for HCV. While about half of them take a slip to order the test, more than a third of them fail to show up for screening, she says.

"At any point of time, we have a large number of individuals where we're waiting for at least a month to see if they're going to get a test," she says. "They've got to go across the street to the main hospital lab to get their blood drawn."

For Thomas, the testing isn't influenced by concerns about potential liability for undetected, pre-existing cases of hepatitis C. In Texas, an employee must link a bloodborne infection to a specific occupational exposure to be covered by workers' compensation. "If you haven't reported a needlestick, as far as we're concerned, legally, it didn't happen," she says.

Last year, out of 436 screening tests, five new employees tested positive for HCV. The cancer center has 11,000 employees.

"Our positivity rate is somewhere between 0.7% and 1.1%," Thomas says. "That is simply the initial

hepatitis C test that is positive. We did not start doing confirmation tests until this year. Once we got the initial positive, we felt that individual ought to be referred out to his or her own physician. We decided that since the number of positive tests is relatively low, we would do confirmatory testing. I would expect our confirmed positive rate is going to be below 1%."

Thomas views the HCV testing as a service for employees. "If we are able to identify and help that individual intervene successfully in what can be a very chronic and very difficult disease to manage, I think that's valuable," she says.

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### Editorial Questions

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2. Centers for Disease Control and Prevention. Recommendations for prevention and control of hepatitis C virus (HCV) infection and HCV-related chronic disease. *MMWR* 1998; 47(RR-19):1-39. ■

## New directors for CDC, NIOSH bring EH touch

**Julie Gerberding**, MD, MPH, a specialist in infectious diseases who helped lead the Centers for Disease Control and Prevention's (CDC) response to anthrax, became the agency's first female director in July.

Employee health professionals are looking forward to CDC leadership from someone with experience working with health care workers in a hospital setting. Gerberding developed post-exposure prophylaxis for health care workers at San Francisco General Hospital. At the University of California-San Francisco, she was director of the Prevention Epicenter, a program for preventing infections in patients and health care workers. In 1998, she joined CDC as director of the Division of Healthcare Quality Promotion. Last fall, Gerberding became prominent in the effort to contain and address the anthrax threat. She most recently served as acting principal deputy director of CDC, helping lead the agency after the resignation of former director Jeffrey Koplan. She also has served as acting deputy director of CDC's National Center for Infectious Diseases.

"She's been a very clinically oriented person. . . . That's very important," says **Geoff Kelafant**, MD, MSPH, FACOEM, medical director of the occupational health department at the Sarah Bush Lincoln Health Center in Mattoon, IL, and chairman of the medical center occupational health section of the American College of Occupational and Environmental Medicine in Arlington Heights, IL. "I think it will be very helpful when we have an issue that comes up, that she will be able to understand the clinical [arena] and some of the issues that affect health care workers."

The National Institute for Occupational Safety and Health also has a new director: John Howard, MD, MPH, JD, LLM, former chief of the Division of Occupational Safety and Health for California's Department of Industrial Relations. He also was assistant professor of environmental and occupational medicine at the University of California at Irvine. Howard is a board-certified occupational health physician and has written extensively on occupational health law and policy. ■

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### 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. ■