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Congress, health worker advocates press OSHA, call for hospital-specific regs

Critics say OSHA fails to keep up with hazards

Has the U.S. Occupational Safety and Health Administration become a weak-willed agency that fails to protect workers from many modern-day workplace hazards? That was the resonating question as the Democratic-controlled Congress bore down on the agency with oversight hearings.

Subcommittees in both the House of Representatives and the U.S. Senate held hearings this spring, raising sharp questions about OSHA's emphasis on voluntary compliance and its lackluster regulatory activity.

Worker advocates specifically targeted health care as a key concern, as they asserted that OSHA has failed to adapt and address hazards that affect workers in service jobs such as health care. "They have abandoned their leadership role in safety and health in addressing the major workplace hazards," **Peg Semanario**, MS, director of occupational safety and health for the AFL-CIO in Washington, DC, told the Senate Subcommittee on Employment and Workplace Safety.

In fact, last fall, the General Accounting Office included workplace safety among "suggested areas for oversight." It urged Congress to determine whether OSHA has adapted to changes in the work force and whether its compliance assistance programs are effective in improving the health and safety of workers.

Lawmakers already are seeking to expand OSHA's reach. A bill titled the "Protecting America's Workers Act," which has been introduced in the U.S. House and Senate, would extend OSHA's coverage to public employees, add new whistle-blower protections, increase penalties for violations, and require employers to provide personal protective equipment free of charge.

Semanario noted that OSHA recently denied an AFL-CIO petition to create a standard related to pandemic influenza preparedness. In late May, the agency issued an extensive pandemic guidance document for health care. **(See related article on p. 76.)**

"It is a potential threat that is looming that could have a bigger devastation than anything we've ever seen," said Semanario. "This is something we need to be focusing on now to make sure the protections are in place."

Semanario and others also hammered OSHA on its failure to address musculoskeletal disorder hazards. OSHA created an ergonomics standard, but it was repealed by Congress in 2001. Since then, there have been no citations of hospitals under the general duty clause for ergonomic hazards, although patient handling injuries are the No. 1 cause of injury in the hospital sector.

At a hearing before the House Subcommittee on Education and the Workforce, OSHA administrator **Edwin Foulke** defended the agency's record by noting that injuries and illnesses overall have declined by 13% since 2002. "The statistics show that the balanced approach we've taken has been extremely successful," he said.

Where is the hospital ergo guideline?

Although hospitals have higher injury rates than construction and manufacturing, most hospitals are unlikely to encounter an OSHA inspector.

In 2005, OSHA inspectors conducted 162 inspections in hospitals, issuing 323 citations. That represents about 0.4% of the total inspections for 2005 — although with 259,000 reported injuries, hospitals account for more reported injuries than any other industry, according to the U.S. Bureau of Labor Statistics. About 7% of all reported injuries occur in hospitals.

Currently, there are no local or national emphasis programs that provide an OSHA focus on hazards in the hospital sector.

"OSHA is essentially obsolete when it comes to dealing with the major hazards these workers face," contends **Bill Borwegen**, MPH, safety and health director for the Service Employees International Union (SEIU) in Washington, DC.

For example, nurses and nursing assistants are among the top 10 occupations that suffer from work-related musculoskeletal disorders. Although a number of states have passed legislation requiring hospitals to establish safe patient handling programs, OSHA has been largely silent on the subject.

In 2004, the National Advisory Committee on Ergonomics (NACE) identified hospitals as the top priority for ergonomic guidelines. OSHA issued guidelines for the nursing home, poultry and grocery industries, but has not issued any new guidelines since 2004. The agency is working on a guideline for shipyard workers but is not currently working on a guideline for acute care hospitals, according to OSHA spokesman **Kelly Rowe**.

"I'm disappointed they haven't done anything about it," says safe patient handling expert **Audrey Nelson**, PhD, RN, FAAN, director of the Patient Safety Center of Inquiry at the James A. Haley VA Hospital in Tampa, FL, who served on NACE. "Enough time has passed that something should

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have happened. To have done nothing about it is a missed opportunity."

Through its alliance with the Association of Occupational Health Professionals in Healthcare (AOHP), OSHA assisted in the development of a patient handling resource guide, which is available from the AOHP web site (www.aohp.org/About/documents/GSBeyond.pdf).

Each year, OSHA conducts a site-specific targeting program, which focuses comprehensive inspections on high-injury workplaces. This year, 10 hospitals were among the 4,150 worksites identified as having a rate of 11 or more injuries and illnesses involving days away from work, restricted work or job transfer per 100 full-time equivalent employees (FTE), or a rate of nine or more injuries involving days away from work per 100 FTE. (The high-hazard workplaces were chosen from a survey of 80,000 workplaces, which included 376 hospitals. Some of those hospitals were in state-plan states and would not have been designated for OSHA inspections.)

Another 50 hospitals with above-average injury and illness rates received warning letters and are on a secondary list for possible inspection.

"In general, hospitals have injury rates below those that the agency currently uses to target inspections," OSHA officials responded in a written comment to *Hospital Employee Health*. "This means that almost all of the hospital inspections conducted by OSHA are initiated by employee complaints, and the majority of those complaints do not involve ergonomics, but instead hazards such as occupational exposure to bloodborne pathogens and chemical hazard communication."

So far, OSHA has been unable to meet the "high burden of proof" for citations under the general duty clause related to ergonomic hazards, OSHA said.

EHPs want hospital-specific regs

Employee health professionals generally support the idea of a stronger OSHA. Hospitals need regulations that were designed for health care, not for manufacturing or other industries, notes **Denise Knoblauch**, RN, BSN, COHN-S/CM, clinical case manager, OSF SFMC Center for Occupational Health at Saint Francis Medical Center in Peoria, IL.

"Health care is a specialty that deserves its own standards when industrial-based standards do not apply, such as infectious disease-based respiratory standards," she says.

The bloodborne pathogen standard, first issued in 1991 and revised in 2001, demonstrates OSHA's potential to have a significant impact on health care worker safety, says **Robert McLellan**, MD, MPH, medical director of employee health at Dartmouth-Hitchcock Medical Center in Lebanon, NH, and president of the American College of Occupational and Environmental Medicine.

"I want to credit OSHA for serving a very important role in helping to begin to change opinions about hospital work and to put in place a very robust standard that has been very helpful," he says. Before that standard was created, "the serious hazards associated with the hospital industry hadn't been widely appreciated," he says.

Now OSHA has an opportunity to provide a similar "minimum foundation standard" in the area of airborne infectious disease, McLellan says.

But he acknowledges that a tension between patient safety/infection control and employee health complicates those efforts.

The answer may lie in a more formal collaboration between the Centers for Disease Control and Prevention, the Joint Commission, and OSHA, suggests McLellan.

OSHA enforcement not consistent

Meanwhile, OSHA's enforcement activity varies widely. While most hospitals never see an OSHA inspector, Dartmouth-Hitchcock Medical Center has had three OSHA inspections in the past two years. Its injury and illness rate is significantly lower than the hospital industry average of 7.5 per 100 FTE. Employee complaints are a key trigger for an OSHA inspection, and those are more likely to occur at a large facility.

Still, safety officer **Lindsey Waterhouse**, manager of safety and environmental programs, appreciates OSHA's role. In fact, he once worked as an OSHA compliance officer. "I do know their importance," he says. "They're the stick. It is important to have an agency like OSHA as a regulator and overseer."

Hospitals should do the right thing without regulation, he notes. For example, Dartmouth-Hitchcock uses the defunct ergonomics standard as a model for job hazard analysis. But in some areas, such as chemical hazards, hospitals need a regulatory framework that OSHA could provide by updating its standards, he says. ■

OSHA: Take steps now on pandemic protection

PPE, planning will help ensure work force

In a pandemic influenza outbreak, your employees will be your most critical resource. That's why hospitals should act now to identify key personnel, provide employee training, and ensure the supply of adequate personal protective equipment, the U.S. Occupational Safety and Health Administration said in its *Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employers.*

The 104-page document compiles information about influenza transmission and infection control, respiratory protection, and lessons learned from the SARS outbreak in Toronto in 2004. It draws from other U.S. Department of Health and Human Services pandemic preparedness plans in presenting the steps that hospitals should take to maintain their work force.

"It is only by protecting the skilled and dedicated employees working in health care that we may weather a pandemic," OSHA administrator **Edwin Foulke** said when the agency released the document.

Although H5N1 avian influenza has receded from the headlines, the threat has not dissipated. In May, the World Health Organization reported 15 new human cases in Indonesia, including 13 deaths. The virus now is responsible for 306 cases, involving 185 deaths, in 12 countries.

For many hospitals, the day-to-day challenges make it difficult to focus on pandemic preparedness. "It's a matter of juggling all the different priorities. It's not always easy to sustain your momentum," acknowledges **Deborah Levy**, PhD, MPH, senior adviser for health care preparedness with the Centers for Disease Control and Prevention in Atlanta and a captain in the U.S. Public Health Service.

Yet the importance of planning for the protection of health care workers recently was underscored in a survey conducted at St. John Hospital and Medical Center in Detroit. When doctors, nurses, and clerical and other workers were asked whether they would come to work if the hospital was treating patients with a pandemic-version of avian influenza, 42% said "maybe."

The biggest factor in their decision: "How confident I am that the hospital can protect me." For 18% of the respondents, financial incentives would not entice them to come to work — even if they were offered triple pay.[1]

St. John is now increasing its stockpile of protective equipment and revising its pandemic plan. Public health authorities in the southern region of Michigan are stockpiling enough antiviral medication to provide for family members of health care workers, says **Charlene B. Irvin**, MD, research director in the department of emergency medicine and associate professor at Wayne State University School of Medicine in Detroit.

"They told us they need to feel more protected," says Irvin. "We plan to start our educational program to let health care workers know what is the real risk if they use infection control measures and what [protective] measures will be in place. I think most health care workers would

Respirator resistance: Why HCWs don't like N95s

In its pandemic influenza guidance, the U.S. Occupational Safety and Health Administration offers this advice about respirator compliance among health care workers:

Health care workers fail to wear respirators for a number of reasons, and it is important to understand the nature of this resistance in order to overcome it. The following are the most frequently cited reasons for not wearing respirators:

1. They are hot and uncomfortable.
2. They produce "pain spots" if poorly fitted.
3. They interfere with communication and performance.
4. They are not easily accessible when you need them.
5. They put the burden of safety on the wearer.
6. They make the wearer look "funny," alarmist, not macho, or unattractive.
7. They produce labored breathing, increased heart rate, and perspiration.
8. They impair vision and actually can be a safety hazard.
9. They produce feelings of claustrophobia and anxiety.

Health care employers should work hard to overcome employee resistance to wearing respirators and promote full compliance with the respiratory protection program. Strategies should be implemented to promote respirator use, such as staff education, reminders in the workplace, and routine observation and feedback. ■

be surprised that we would have enough antivirals for them and their family members."

Hospitals must address the fears of health care workers, Irvin says. Surveys that ask whether they would report to work in a pandemic may actually underestimate the number who would stay away, she says. "It's much easier on a survey to be heroic and do the ethically responsible thing," she says.

Here are some key points about personal protective equipment (PPE) from the OSHA guidance:

- Hospitals should stockpile disposable respirators because a shortage of supplies is likely once a pandemic starts.
- Hospitals should consider purchasing elastomeric respirators for essential personnel. They can be decontaminated and reused if N95s are not available.
- Powered air-purifying respirators should be considered for essential personnel who will be wearing respirators for an extended time and may be involved in aerosol-generating procedures.
- If N95 respirators are in short supply, employees may reuse respirators that are not visibly soiled or damaged. Wearing a face shield may help prevent contamination of the outside of the respirator as long as the face shield doesn't interfere with the face seal of the respirator.
- There is no need to double-glove. Gloves may not be washed and reused.
- Gowns are not required for most routine patient care activities.
- Goggles and face shields should be used if a health care worker is within 3 feet of a coughing patient.
- PPE should be donned in the following order: gown, respirator (or mask, when appropriate), face shield or goggles, gloves.
- PPE should be removed in the following order: gloves, faceshield or goggles, gown and respirator or mask.

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Lesson of SARS: HCWs don't always use precautions

Education, early identification improve compliance

To protect health care workers during a pandemic, you'll need more than a stockpile of N95s and a fit-testing protocol. You'll need well-trained health care workers who understand how and when to use the respirators.

That is one lesson from SARS that may influence planning for pandemic influenza. Hospitals in Toronto had "an enormous trouble getting people to change their behavior in the face of what was clearly life-threatening illness," **Allison McGee**r, MD, director of infection control at Mount Sinai Hospital in Toronto, told the Institute of Medicine Committee on Personal Protective Equipment for Healthcare Workers During an Influenza Pandemic.

Health care workers were very fearful about becoming infected with SARS. Two nurses and a doctor died in the 2003 Ontario outbreak and 45% of the 375 probable cases were among health care workers. But often health care workers still did not consistently use and properly remove respirators and other personal protective equipment, according to a survey of 795 health care workers at 15 hospitals.

Paradoxically, health care workers caring for the sickest patients were the least likely to consistently use respiratory protection, McGeer found. The health care workers were apparently more concerned about their patients than about their own protection. "We think that's probably a hero phenomenon," she explained.

Health care workers also were less likely to adhere to proper precautions if they entered the patient's room more often. And contrary to the advice from the Centers for Disease Control and Prevention, health care workers were not more adherent to precautions if they were involved in aerosol-generating procedures.

"People's adherence was driven by what type of patient they thought they were taking care of, not what procedure they were doing," McGeer says.

Patient-driven PPE?

What are the implications for pandemic influenza planning? Employee health and infection control professionals may need to rethink how they educate health care workers to make decisions about PPE. "We need to rethink the focus on whether procedure-driven PPE as opposed to patient-driven PPE is going to be something that is feasible in the future," she says.

Education about PPE may have a significant impact on adherence, the study indicated. Health care workers in the SARS and intensive care units had higher levels of adherence.

Identifying risk major factor

Identification of risk also was a major factor. At the beginning of the SARS outbreak, although health care workers were cautioned to use precautions with patients who had respiratory illness, only 5.6% reported consistently using PPE with patients who had not been diagnosed with SARS. In those early days, only 55.7% of health care workers caring for SARS patients consistently adhered to precautions.

Two months into the outbreak, about 95% of health care workers used precautions with SARS patients as well as patients with respiratory symptoms.

In fact, 73% of health care workers who contracted SARS were caring for patients who had not been diagnosed. "Hazard identification is the largest component of our failure in health care systems," McGeer said.

HCWs want better protections

Discomfort also may influence health care workers' adherence to respiratory protection. **Bill Borwegen**, MPH, health and safety director of the Service Employees International Union cited an Ontario Nurses Association survey that found that nurses developed headaches, shortness of breath, facial rashes, fatigue, or dizziness after prolonged N95 use.

"Are there better forms of respiratory protection we should be considering?" he asked the panel.

Hospitals should consider health care worker fears as they draft pandemic plans, placing an emphasis on higher levels of protective equipment, said **Leonard Mermel**, DO, ScM, medical director of infection control at Rhode Island Hospital in Providence and former president of the Society for Healthcare Epidemiology of America.

"I would err on the side of caution during routine care [of pandemic influenza patients] based on perception of risk and possible transmission risk," he said. "If further research shows transmission only by large droplets during routine care, then you can change the policy and use masks and eye protection for routine care and N95s for aerosol-generating procedures." ■

Pandemic mask guidance frees up N95s for HCWs

CDC: Use masks for all but HCWs

If a pandemic strikes, masks can be used along with "social distancing" and hand hygiene to protect against community transmission, the Centers for Disease Control and Prevention (CDC) announced. That recommendation clears the way for businesses to stockpile less expensive and more abundant surgical masks — and to leave the N95 respirators for hospitals and other health care facilities.

Already, the respirator supply has loosened, says **David Naylor**, vice president of sales at Aramsco, of Thorofare, NJ, the world's largest distributor of N95 respirators. Some hospitals had experienced delays in receiving their respirator orders as large customers ordered respirators for pandemic stockpiling.

"The surgical mask decision by CDC finally gave some direction to the pandemic preparedness market," says Naylor, who is knowledgeable about the health care market but does not supply hospitals. "Whether accidentally or intentionally, it will have a big relief on hospital supplies."

Respirators or masks are considered a key protective measure in the event of pandemic influenza. Public health authorities acknowledge that it will take months, at least, to develop a strain-specific vaccine.

N95s have 'limited role'

Last year, the CDC reversed its previous guidance and said that N95 respirators would be "prudent" for health care workers during "direct care activities involving patients with confirmed or suspected pandemic influenza."

Yet massive worldwide stockpiling by corporations, utilities, and public health agencies caused spot shortages of N95s even for hospitals' everyday use.

Now, the CDC is urging those businesses and individuals who are doing personal pandemic planning to rely primarily on surgical masks. N95 respirators, which require fit-testing in order to have the proper protective factor, "have a very limited role in pandemic planning," CDC director **Julie Gerberding**, MD, MPH, said in a press conference.

"No mask or any facial protection alone is

going to be enough to completely eliminate the risk of a pandemic," she said. "So people have to always remember that what they're doing about their protection has to be done in context of [other] steps."

Gerberding acknowledged that the community-based mask guidance wasn't based on scientific evidence, and that more research is needed on the protective value of masks and respirators. But she added, "we think that we have something to offer here that will just be useful to people who are making decisions for themselves and for their families."

The CDC does recommend that family members caring for a sick person at home wear a respirator, if one is available.

Gerberding also discouraged businesses outside of health care from stockpiling. "Masks may be an extra margin of safety for businesses, but I don't think any of the masks that we're talking about today are going to make a very big difference in what a business would need to be doing during a pandemic," she said. "So at this point, I would say that stockpiling masks of any kind is really an option that some businesses may consider, but it wouldn't be our priority in terms of overall preparedness."

The national stockpile contains about 52 million surgical masks and 100 million N95 respirators.

Beyond 'just-in-time' planning

While business sites generally do not need to worry about N95 stockpiling, hospitals need to pay greater attention to their supplies, advises Naylor.

Most hospitals function with "just-in-time" inventory, maintaining just three days supply of respirators and other products. They count on vendors to maintain a stockpile for emergencies.

"It gives them this artificial feeling of security," says Naylor. "Keep in mind this is not a government-owned stockpile. This is owned by private entities.

"Don't expect your contract holder of your three-day predictable usage to be able to handle a surge that is nationwide," he says.

Instead, hospitals should purchase a stockpile and contract with a third party to store respirators, advises Naylor. Excess government warehouse space is available around the country at low rates, he says.

"Your agreement should be that you can come in without notice and inventory your material," he says.

(Editor's note: More information about community mitigation of pandemic influenza is available at www.pandemicflu.gov.) ■

NIOSH: Monitor HCWs with chemo exposure

Recommends annual symptom questionnaire

Medical breakthroughs for patients can present new hazards for health care workers. With an ever-expanding range of hazardous drugs, hospitals must identify employees at risk and conduct medical surveillance at least annually, according to the National Institute for Occupational Safety and Health (NIOSH).

"There's been a real evolution of drugs to be increasingly toxic, but we've never ratcheted up an increasing responsibility to both communicate the hazard and protect health care workers," says **Melissa McDiarmid**, MD, MPH, professor of medicine and director of the occupational health program at the University of Maryland School of Medicine in Baltimore. She is a member of the NIOSH hazardous drug workgroup and a co-author of NIOSH's "Workplace Solutions" document on medical surveillance and hazardous drugs.

NIOSH advises employers to provide a symptom questionnaire to look for potential physical effects from the drugs, many of which are known carcinogens or reproductive hazards. The employees also should have a baseline CBC (complete blood count), urinalysis, and physical exam, and employers may want to consider other tests, such as liver function, NIOSH says**. (See insert for a sample questionnaire.)**

NIOSH has identified about 120 hazardous drugs used in health care settings, says **Thomas Connor**, PhD, research biologist at NIOSH in Cincinnati. "I don't know any other industry where you would have so many toxic chemicals," he says. "Nothing comes close. These are toxic because they work. They kill bacteria, yeast, fungi, and cancer cells. They have to be toxic."

Employees should have access to a Material Safety Data Sheet with information about each drug, he notes. But NIOSH isn't able to offer specifics on medical surveillance for each agent.

Elements of a medical surveillance program

According to the National Institute for Occupational Safety and Health, the minimum elements of a medical surveillance program for hazardous drugs should include:

- reproductive and general health questionnaires completed at the time of hire and periodically thereafter;
- laboratory work, including complete blood count and urinalysis, completed at the time of hire and periodically thereafter. Additional tests, such as liver function and transaminase tests, may be considered.
- physical examination completed at the time of hire and then as needed for any worker whose health questionnaire or blood work indicates an abnormal finding;
- follow-up for those workers who have shown health changes or have had a significant exposure (substantial skin contact, cleaning a large spill [a broken bag, leaking IV line], etc.).

Review periodic health questionnaires and laboratory results for trends that may be a sign of health changes due to exposure to hazardous drugs. If health changes are found, the employer should take the following actions:

- **Evaluate current protective measures:**

1. Engineering controls (biological safety cabinets/isolators, ventilation, closed system transfer devices, and closed IV systems).

— Compare performance of controls with recommended standards.

— Conduct environmental sampling when analytical methods are available.

2. Policies for the use of PPE and employee compliance with PPE use and policies.

3. Availability of appropriate PPE such as double gloves, nonpermeable gowns, and respiratory protection.

- **Develop a plan of action that will prevent further employee exposure.**
- **Ensure confidential notification of any adverse health effects to an exposed worker and offer alternative duty or temporary reassignment.**
- **Provide ongoing medical surveillance of all workers at risk to determine whether the new plan is effective.** ■

However, there are some basic measures that employers should have in place. "The first step is to identify who makes up that population [of potentially exposed employees] in your facility," Connor says.

Think broadly, advises Connor. Oncology nurses and pharmacists who prepare the drugs are obvious candidates for surveillance. But your list should include the housekeepers who change linens, the nursing assistants who empty bed pans, and the shipping and receiving workers who open boxes containing vials of the drugs, he says.

Studies show that the outside of the vials may be contaminated, he notes. "The people unpacking in the receiving department should be taking precautions," he says.

Look for rash, side effects

What should you be looking for in medical surveillance? That actually is a difficult question because the drugs are so varied and the effects may be gradual and long term.

Think about the side effects the drugs cause in your patients, such as an abnormally low white blood count or anemia, advises McDiarmid. For example, some of the drugs may have an effect on liver function.

Skin rashes also may indicate a problem. "Skin is going to be the route of exposure a lot of times," says McDiarmid, though she notes that drugs also become aerosolized in unexpected ways — for example, when a nursing assistant empties the bedpan of a chemotherapy patient into a toilet and flushes.

A significant exposure from a spill can cause acute effects, such as dizziness, rash, and profuse sweating, says Connor. Many of the antineoplastic drugs, such as cyclophosphamide, are known carcinogens. A NIOSH alert published in 2004 warns: "Health care workers who work with or near hazardous drugs may suffer from skin rashes, infertility, miscarriage, birth defects, and possibly leukemia or other cancers."[1]

Reproductive health issues may be difficult to evaluate. After all, miscarriage naturally occurs in about 25% of recognized pregnancies, McDiarmid

notes. But it's important to look for reproductive health trends among staff handling the drugs.

Surveys of 4,393 nurses in the Netherlands found that nurses with dermal exposure to antineoplastic drugs took longer to conceive and were more likely to have premature delivery or low birth weight babies than a control group.[2]

Oncology nurses and others with potential exposure to hazardous drugs need to be aware of the potential reproductive hazards, says **Marty Polovich**, MN, RN, AOCN, oncology clinical nurse specialist at Southern Regional Medical Center in Riverdale, GA. If health changes occur, the hospital needs to take a closer look at the use of personal protective equipment and other measures to reduce exposure.

"Are the employees using appropriate precautions?" she says. "Is the safety cabinet working the way it's supposed to be working?"

Few offer surveillance

In its alert issued three years ago, NIOSH emphasized the need to assess the hazards and monitor employee exposures to antineoplastic agents. But few health care employers provide regular medical surveillance, according to a survey of 330 nurses by the Oncology Nurses Society, based in Pittsburgh.

About 47% of the nurses reported some type of surveillance, including a baseline physical exam. Only about 30% received an annual symptom questionnaire, and 22% had an annual physical exam as part of medical surveillance. Lab work was even rarer; 8% of nurses reported annual blood or urine tests.

The NIOSH guidance provides some momentum for surveillance, says Polovich. "Organizations will begin to appreciate the fact that people who handle hazardous drugs should be monitored in some way, even if it's only an annual questionnaire," she says.

Meanwhile, employers can take other steps to reduce exposure, advises Connor. Employees with potential exposure should receive periodic training on safe handling of the drugs. And hospitals should keep up on new protective technology as well as the addition of new drugs and novel uses of chemotherapeutic agents. For example, some of the agents are now being used in the operating room to flush the peritoneal cavity during surgery.

In the effort to create better outcomes for patients, make sure you're not putting health care workers at risk from exposure, he says.

(Editor's note: A copy of the Workplace Solutions document, Medical Surveillance for Health Care Workers Exposed to Hazardous Drugs, is available at www.cdc.gov/niosh/docs/wp-solutions/2007-117.) ■

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WA law targets workplace violence

Mental health workers gain protection

It's hard to imagine a scenario of greater emotion, conflic, and potential risk than when a mental health worker visits the home of a mentally unstable person to evaluate them for involuntary psychiatric commitment. In 2005, such a visit by Marty Smith in Kitsap, WA, turned deadly. Two years later, his case spurred a Washington state law to protect community health workers from violent assaults.

Although the Marty Smith Law does not address employees in acute care facilities, it may become a catalyst for further protections against workplace violence, worker advocates say. The law allows workers to request assistance when they visit homes for crisis intervention or to evaluate someone for detention. It also provides for training and for access to information about a patient's "history of dangerousness or potential dangerousness."

"This is really one of the top workplace safety and health hazards that [health care and mental health] workers face," says **Bill Borwegen**, MPH, health and safety director of the Service Employees International Union (SEIU). "We're going to do everything we can to pass laws at the state level."

About 45% of nonfatal assaults resulting in lost work time occur in health care, notes **Jane Lipscomb**, PhD, MS, BSN, FAAN, RN, director of the University of Maryland School of Nursing Center for Occupational and Environmental

Health and Justice. "This is a huge national issue with the best estimate of the number of workers who are victims of workplace violence estimated at 1.7 million incidents a year," she says.

About half (54%) of employers with 250-1,000 workers and 82% of employers with 1,000 or more workers in health care and social assistance reported an incident of workplace violence in the prior year, according to a 2005 survey by the U.S. Bureau of Labor Statistics.

A Washington state study found that the health services sector was second only to social services as the industry with the highest risk for workplace violence.[1]

Gang- or drug-related violence may spill into the emergency department. Or patients may be agitated, disoriented, or suffering from a psychotic episode. With the movement of patients from psychiatric hospitals to community settings, the hazards rise for community mental health workers and acute care facilities, says Lipscomb.

"The mentally ill aren't necessarily inherently more dangerous. It's when their treatment isn't appropriate that we have these incidents," she says.

Lipscomb and **Kathleen M. McPhaul**, PhD, MPH, RN, assistant professor in the Work and Health Research Center at the University of Maryland School of Nursing conducted focus groups of community mental health workers in Washington state as part of a field study. They found that high caseloads, solo visits, and lack of training contributed to the hazards.

The U.S. Occupational Safety and Health Administration included those risk factors among others in its 2004 *Guidelines for Preventing Workplace Violence for Health Care & Social Service Workers* and noted that "health care and social service workers are at high risk of violent assault at work."

OSHA advises hospitals and other health care employers to analyze their workplace violence injury records, conduct a security analysis, and survey employees to get their input on preventing violent incidents. OSHA recommends establishing a violence prevention team that includes representatives from management, operations, employee assistance, security, occupational safety and health, legal, and human resources staff.

Training of all employees should occur at least annually, OSHA says. But training alone is not sufficient, notes McPhaul. Reducing workplace violence requires a comprehensive program. "This is not the type of hazard that can just be trained away," she says.

CNE *questions*

1. Which of the following is a part of the proposed Protecting America's Workers Act?

A. Requiring OSHA to promulgate new standards
B. Addressing ergonomic hazards
C. Requiring all employers to have an employee health and safety program
D. Extending OSHA protections to public employees

2. According to OSHA's *Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employers*, which of the following PPE is not required for routine patient care activities during an influenza pandemic?

A. Gloves
B. Gowns
C. Respirators
D. Goggles or face shields

3. According to Allison McGeer, MD, which of the following health care workers were LEAST likely to use personal protective equipment during the SARS outbreak?

A. Health care workers performing aerosol-generating procedures.
B. Personnel in the intensive care unit.
C. Health care workers caring for the sickest patients.
D. Health care workers with the most years of experience.

4. According to NIOSH, what should employers provide annually for medical surveillance of employees who handle hazardous drugs?

A. A symptom questionnaire to look for potential physical effects.
B. A physical exam.
C. A urine test to check for toxic by-products.
D. Surveillance is only required after known exposures.

Answer Key: 1. D; 2. B; 3. C; 4. A.

CNE instructions

Nurses participate in this continuing education program by reading the issue, using the provided references for further research, and studying the questions at the end of the issue. Participants should select what they believe to be the correct answers, then refer to the list of correct answers to test their knowledge. To clarify confusion surrounding any questions answered incorrectly, please consult the source material. After completing this semester's activity with the **December** issue, you must complete the evaluation form provided in that issue and return it in the reply envelope provided to receive a credit letter. ■

The guidelines provide specific suggestions of security measures, policies, and training components. **(For a sample checklist, see article below.)**

"Not only do we need universal precautions against blood exposures in health care, but we also need them against workplace violence," says Lipscomb. "Every hospital should have a program. Unfortunately, the majority of them don't."

Hospitals often call to obtain help with workplace violence training programs, she says. But she notes, "Training in and of itself is not going to reduce or eliminate the problem."

(Editor's note: The OSHA guidelines are available at www.osha.gov/Publications/OSHA3148/osha3148.html.)

Reference

1. Foley, M. *Violence in Washington Workplaces, 1995-2000* (Technical Report No. 39-4-2002). Olympia, WA: Washing-ton State Department of Labor and Industries; 2002. ■

Assessing your workplace for risk of violence

How can you reduce the risk of workplace violence at your hospital? The U.S. Occupational Safety and Health Administration recommends conducting a worksite analysis that includes a review of records, input from employees, and a thorough walk-through to identify potential hazards. The American Nurses Association in Washington, DC, developed several checklists to guide such an analysis, which are available in the OSHA guidelines (*www.osha.gov/Publications/OSHA3148/osha3148.html)*. Here are two of those checklists:

Assessing safety of the environment:

• Do crime patterns in the neighborhood influence safety in the facility?

• Do workers feel safe walking to and from the workplace?

• Are entrances visible to security personnel and are they well lit and free of hiding places?

• Is there adequate security in parking or public transit waiting areas?

• Is public access to the building controlled, and is this system effective?

• Can exit doors be opened only from the inside to prevent unauthorized entry?

• Is there an internal phone system to activate emergency assistance?

• Have alarm systems or panic buttons been installed in high-risk areas?

• Given the history of violence at the facility, is a metal detector appropriate in some entry areas? Closed-circuit TV in high-risk areas?

• Is there good lighting?

• Are fire exits and escape routes clearly marked?

• Are reception and work areas designed to prevent unauthorized entry? Do they provide staff good visibility of patients and visitors? If not, are there other provisions such as security cameras or mirrors?

• Are patient or client areas designed to minimize stress, including minimizing noise?

• Are drugs, equipment, and supplies adequately secured?

• Is there a secure place for employees to store their belongings?

• Are "safe rooms" available for staff use during emergencies?

• Are door locks in patient rooms appropriate? Can they be opened during an emergency?

• Do counseling or patient care rooms have two exits, and is furniture arranged to prevent employees from becoming trapped?

• Are lockable and secure bathrooms that are separate from patient-client and visitor facilities available for staff members?

Assessing day-to-day work practices:

• Are identification tags required for both employees and visitors to the building?

• Is there a way to identify patients with a history of violence? Are contingency plans put in place for these patients — such as restricting visitors and supervising their movement through the facility?

• Are emergency phone numbers and procedures posted or readily available?

• Are there trained security personnel accessible to workers in a timely manner?

COMING IN FUTURE MONTHS

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- Are chemical substitutes really safer?
- Checklist for hospital pandemic preparedness
- VA takes tough stand on MRSA
- CA moves forward on airborne infectious disease reg

• Are waiting times for patients kept as short as possible to avoid frustration?

• Is there adequate and qualified staffing at all times, particularly during patient transfers, emergency responses, mealtimes, and at night?

• Are employees prohibited from entering seclusion rooms alone or working alone in emergency areas of walk-in clinics, particularly at night or when assistance is unavailable?

• Are broken windows, doors, locks, and lights replaced promptly?

• Are security alarms and devices tested regularly? ■

CNE 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. ■

Annual Medical Survey for Hazardous Drug Handlers

A. Medical history:

1. In the course of the last year, have you had any changes in your general health?
_____ YES_____ NO

If yes, please describe:_____

_____

2. In the course of the last year, have you had any of the following symptoms listed below?

Symptoms	No	Yes	Have you noticed that these symptoms occur in relation to your work week? (e.g., either during the workday, or immediately after)
Bruising			
Dizziness			
Facial flushing			
Fever			
GI complaints			
Hair loss			
Headache			
Nausea			
Nosebleed			
Respiratory			
Skin rash			
Sore throat			
Vomiting			
Wheezing			
Other (Specify):			

3. In the course of the last year, have you had a significant unintentional weight loss?

_____ YES_____ NO If yes, how many lbs? _____

4. In the course of the last year, or since you last completed this questionnaire, have you had any of the following reproductive events listed below?
   a) Have you or your partner ever had a problem conceiving a child?
   _____ YES_____ NO

   b) Have you or your partner consulted a physician for a fertility or other reproductive problem?
   _____ YES_____ NO
   If yes, please specify who consulted the physician: _____ self _____ partner _____ self and partner
   If yes, please state the diagnosis that was made: _____

c) In the past year, have you or your partner conceived a child resulting in a miscarriage, still birth, or birth defect? _____ YES_____ NO
If yes to question 4 c, please specify the type of outcome:
_____ miscarriage _____ still birth _____ birth defect
If the outcome was a birth defect, please specify the type or describe": _____
_____

d) What is the occupation of your spouse or partner? _____

e) For women only: In the past year, have you had any menstrual irregularities? _____ YES_____ NO
If yes, please specify the type of menstrual irregularity: _____
If yes, how many episodes of this irregularity did you have (in the past year)? _____

B. Work history:

1. How many hours a week do you usually work with hazardous drugs (either handling, or in the area where they are being handled)? _____

2. Has this schedule changed over the past year? _____ YES_____ NO If yes, how has it changed?
_____
_____

3. In the course of the last year, have you been around an antineoplastic drug spill? _____ YES_____ NO
If yes, please give approximate date or dates (if this occurred more than once)._____
If yes, approximately how large was the spill? _____ Smaller than 5 mL _____ Larger than 5 mL
If yes, did you clean it up? _____ YES_____ NO
If yes, what protective clothing were you wearing when spill occurred?_____

4. In the course of the last year, have you accidentally ingested, breathed in, or had skin contact with an antineoplastic drug or solution?_____ YES_____ NO
If yes, how often? _____

5. Please check the most appropriate answer as it applies to your antineoplastic drug handling practice:

	Always	Often	Sometimes	Rarely	Never
I wear disposable gloves.					
I wear double gloves.					
I change my gloves according to the guidelines on my unit.					
I wear disposable gowns.					
I wear eye protection (goggles).					
I wear a protective mask.					
I wear disposable booties.					
I wear disposable hair covers.					
If I mix drugs, I use a biological safety cabinet.					

Source: McDiarmid MA, Curbow B. Risk communication and surveillance approaches for workplace reproductive hazards. *J Occup Med Toxicol* 1992; 1:63-74.

Dear *HOSPITAL EMPLOYEE HEALTH* Subscriber:

This issue of your newsletter marks the start of a new continuing nursing education (CNE) semester and provides us with an opportunity to review the procedures.

HOSPITAL EMPLOYEE HEALTH, sponsored by AHC Media LLC, provides you with evidence-based information and best practices that help you make informed decisions concerning treatment options and physician office practices. Our intent is the same as yours — the best possible patient care.

The objectives of *HOSPITAL EMPLOYEE HEALTH* are to:

- **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; and
- **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.

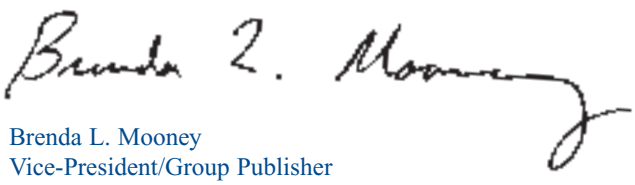
Each issue of your newsletter contains questions relating to the information provided in that issue. After reading the issue, answer the questions at the end of the issue to the best of your ability. You can then compare your answers against the correct answers provided in an answer key in the newsletter. If any of your answers were incorrect, please refer back to the source material to clarify any misunderstanding.

At the end of each semester, you will receive an evaluation form to complete and return in an envelope we will provide. Please make sure you sign the attestation verifying that you have completed the activity as designed. Once we have received your completed evaluation form we will mail you a letter of credit. This activity is valid 36 months from the date of publication. The target audience for this activity is nurses.

If you have any questions about the process, please call us at (800) 688-2421, or outside the United States at (404) 262-5476. You also can fax us at (800) 284-3291, or outside the United States at (404) 262-5560. You also can e-mail us at: customerservice@ahcmedia.com.

On behalf of AHC Media, we thank you for your trust and look forward to a continuing education partnership.

Sincerely,



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