



Hospital Employee Health®

THE PRACTICAL GUIDE TO KEEPING HEALTH CARE WORKERS HEALTHY

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Will CMS survey enforce OSHA regs?

Closing gap between employee health, patient safety

As the lines blur between patient safety and worker safety, employee health professionals can expect much more scrutiny from regulators who traditionally focused on patient care.

A new draft survey tool from the Center for Medicare & Medicaid Services (CMS) sounds a bit like an inspection checklist from the U.S. Occupational Safety and Health Administration. Is your bloodborne pathogen program up to date? Are you fit-testing at-risk employees every year? Did you document offering the hepatitis B vaccine?

Those are just a few worker-related questions on the new survey tool, which is in its final stages of pilot-testing. The final tool is expected in October.

“The government’s catching on that there’s a connection between employee safety and patient safety,” says **Bill Buchta**, MD, MPH, medical director of the Occupational Health Service at the Mayo Clinic in Rochester, MN. “But it just seems odd that you have Medicare and Medicaid, where the primary goal is patient safety and getting the best value for your dollar, [asking about] providing hepatitis B vaccine.”

In most cases, CMS isn’t actually proposing to cite hospitals for worker safety issues. The survey tool contains items that are subject to citation (such as using single-dose vials with more than one patient) and those that aren’t subject to citation (such as failure to empty sharps containers). But the tool is also intended for self-assessment by hospitals, says **Daniel Schwartz**, MD, MBA, chief

Special Report

The Center for Medicare and Medicaid Services (CMS) is putting a spotlight on infection control and employee health with a new survey tool. In this issue, we’ll tell you what you need to know about how to prepare now for the inspections.



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medical officer of the CMS Survey and Certification Group in Baltimore, MD. “We felt it was important to include those questions that weren’t in the standards but that we felt were very important for basic infection control and to prevent the transmission of infections in hospitals,” he says.

OSHA worked with CMS

The greater CMS focus on worker safety is no accident. OSHA has been working with

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Editorial Questions

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AHC Media

CMS to build awareness around the safety culture and work environment, says **Dionne Williams**, MPH, senior industrial hygienist and a specialist in bloodborne pathogen exposure.

“We’re happy to know they’re incorporating worker safety in their survey,” she says. “Those are the collaborations we’re doing behind the scenes to get others involved in fighting the fight for worker safety. “It’s an effort to get people thinking that patient safety and worker safety shouldn’t be separate. “It needs to be considered all a part of how you’re going to improve infection control in the health care setting.”

CMS has authority and precedence for expecting hospitals to protect both patients and personnel from infectious diseases. The Conditions of Practice (CoPs) include the stipulation: “The infection control officer or officers must develop a system for identifying, reporting, investigating, and controlling infections and communicable diseases of patients and personnel.”

CMS also expects hospitals to follow universally accepted guidelines, notes **Karen Hoffmann**, RN, MS, CIC, FSHEA, infection preventionist with the CMS Survey and Certification Group. “[The provisions of the Bloodborne Pathogen Standard] have been in place since 1991, so that’s not beyond minimal standards,” she says.

The survey tool includes a catchall requirement for the hospital to demonstrate “general infection control policies and procedures that are based on nationally recognized guidelines and applicable state and federal law.” As with other CoPs, failing to do so can result in a citation, the need for a plan of correction — and potential impact on reimbursement.

EH boost from survey items

Whether CMS cites or not on certain items, the inclusion of worker safety on a survey tool could have a significant impact on employee health. Among other infection control items, the tool asks if hospitals:

- provide job-specific training in infection control, including bloodborne pathogen training for those employees with the potential for exposure.

- address sharps injuries and follow up on bloodborne pathogen exposures and TB conversions.

CMS survey targets employee health

The pilot testing version of the CMS survey includes the following elements on hospital employee health:

- Healthcare personnel receive job-specific training on hospital infection control practices, policies, and procedures upon hire and at regular intervals. The hospital infection control system trains healthcare personnel that are in contact with bloodborne pathogens on the bloodborne pathogen standards upon hire and when problems are identified.
- The hospital infection control system addresses needle sticks, sharps injuries, and other employee exposure events. Following an exposure event, post-exposure evaluation and follow-up, including prophylaxis as appropriate, is available.
- The hospital infection control system ensures healthcare personnel with TB test conversions are provided with appropriate follow-up.
- The hospital infection control system ensures the facility has a respiratory protection program that details required worksite-specific procedures and elements for required respirator use. Respiratory fit testing is provided at least annually to appropriate healthcare personnel.
- Hospital has well-defined policies con-

cerning contact of personnel with patients when personnel have potentially transmissible conditions. These policies should include work-exclusion policies that encourage reporting of illnesses and do not penalize with loss of wages, benefits, or job status.

- Aggregated rates of TB-test conversion are periodically reviewed to determine the need for corrective action plans.
- Healthcare personnel competency and compliance with job-specific infection prevention policies and procedures are ensured through routine training and when problems are identified.
- The hospital infection control system provides Hepatitis B vaccine and vaccination series to all employees who have occupational exposure and conducts post-vaccination screening after the third vaccine dose is administered.
- The hospital infection control system ensures that all healthcare personnel (paid and unpaid) who have potential for exposure to TB are screened for TB upon hire and, if negative, based upon facility risk classification thereafter.
- The hospital infection control system ensures that all healthcare personnel are offered annual influenza vaccination ■

- replace sharps containers when the fill line is reached.
- have a respiratory protection program and annual fit-testing for appropriate personnel.
- have non-punitive work exclusion programs when employees are ill.
- provide hepatitis B vaccine to those with the potential for exposure, offer influenza vaccine and screen appropriate personnel for TB.

At Tampa (FL) General Hospital, **JoAnn Shea**, MSN, ARNP, director of employee health and wellness, plans to go over each employee-related item with a task force. “We’re going to address each of those elements and how we comply,” she says.

She anticipates putting the appropriate policies and other information in an easily

accessible binder. For example, nurses in the employee health clinic must clear employees for work if they’ve been absent for three days or more due to illness.

At the Marshfield (WI) Clinic, **Bruce Cunha**, RN, MS, COHN-S, manager of employee health and safety, asks managers to conduct monthly safety checks in their departments. They observe employees to make sure they’re performing hand hygiene, and they peer into sharps containers to make sure safety features have been activated.

Bottom line: Hospitals should already be complying with the items on the CMS infection control assessment, he says. “If you’re doing what you should be doing as a health care facility, you’ve got most of these pro-

grams in place,” he says.

Be aware of CMS, OSHA differences

It is also interesting to note some things that are missing in the CMS survey tool. An earlier version specifically suggested talking to an employee health professional. The current version instructs the surveyor to talk to “the most appropriate staff person(s) for the items of interest.”

That change came as the tool was shortened and streamlined, and wasn’t intended to de-emphasize anyone’s involvement, says Hoffmann.

The CMS tool does not completely mirror OSHA’s Bloodborne Pathogen Standard, notes Pamela Dembski Hart, CHSP, BS, MT (ASCP), principal with Healthcare Accreditation Resources in Boston. For example, it states, “The hospital infection control system trains healthcare personnel that are in contact with bloodborne pathogens on the bloodborne pathogen standards upon hire and when problems are identified.”

OSHA requires bloodborne pathogen training upon hire and at least annually, and “when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee’s occupational exposure.”

The assessment tool will be helpful, but won’t ensure compliance with OSHA regulations, she notes. “There’s definitely overlap with OSHA [in the CMS survey tool],” says Hart. “I think that’s great as long as the hospital understands that CMS’s goal is not to address OSHA standards in their entirety.”

Interestingly, the CMS tool mentions influenza immunization and hepatitis B vaccination, but not MMR, Tdap (pertussis) and varicella. This year, there has been a pertussis outbreak in Washington state and a measles outbreak in Indiana.

CMS may still be revising the tool, notes Schwartz. “We’ve invited comments from a wide range of organizations. We’ll take into consideration any feedback we get,” he says.

Beyond the details of the tool, the inclusion of worker safety raises the profile of employee health. And that has been welcomed by employee health professionals.

“CMS has the potential for making change in hospitals,” says Cunha.

The Joint Commission accrediting body is

likely to follow the CMS lead and focus on the same areas, says Shea. And that means employee health will become a greater priority for hospital administration, she says.

“I don’t think we always get acknowledged for what we do to protect the hospital from infections,” she says. “Employee health works behind the scenes to make sure our health care workers practice safely, don’t have infectious diseases and are treated for exposures.” ■

Why are there *still* so many sharps injuries?

MA data sheds some light

About 3,000 sharps injuries occur each year in Massachusetts hospitals. That’s about the same number that occurred in 2002, although the rate dropped by 31% — which means that the goal of eliminating needlesticks is still far from accomplished.¹

In fact, the Centers for Disease Control and Prevention estimates that 385,000 sharps injuries occur in the nation’s hospitals every year,² even though sharps safety is now an accepted part of life in U.S. hospitals.

Why are needlesticks so difficult to prevent? The Massachusetts data, which comes from all 97 hospitals licensed by the state, sheds light on persistent problems. Angela Laramie, MPH, epidemiologist with the Massachusetts Department of Public Health Occupational Health Surveillance Program, offers these observations from her analysis of the data:

Too many sharps devices still lack sharps injury prevention features. In 2010, more than half of sharps injuries (57%) occurred with devices that lacked safety features, including about a quarter (24%) of hypodermic needles/syringes.³ One major contributor: Conventional needles continue to be placed in pre-packaged kits, such as a central line kit, says Laramie.

Between 2006 and 2010, 55% of the 3,057 injuries that occurred from devices in pre-packaged kits involved devices that lacked sharp injury prevention features. In fact, those conventional devices in pre-packaged kits accounted for one in every 10 sharps injuries reported by Massachusetts hospitals.

Laramie acknowledges that the problem of

pre-packaged kits isn't simple to solve. Health care workers are supposed to have input into the selection of sharps safety technology and they need training if the device differs from the ones they normally use. She recommends that hospitals work with kit packers to obtain kits with safety-engineered devices.

The bottom line: Hospitals need to seek ways to reduce injuries that occur with safety-engineered devices, she says. "We require the hospitals to use their data as a part of continuous quality improvement. Hospitals are doing what they can to continue to look at devices. They often have committees that are reevaluating devices," she says.

Injuries are still occurring because there wasn't safe disposal. About 12% of injuries occurred because of improper disposal or during disposal, Laramie notes. For example, an unprotected sharp may have been left on a table or tray, or someone was injured while disposing of a device. She advises reviewing the placement of sharps containers. "You want to make sure that they're as close [as possible] to the point of use and placed at a height that's easy for people to reach," she says. Of course, activation of safety devices also decreases the risk of sharps injury after use and before disposal.

Medical trainees are at greater risk of sharps injury. Laramie analyzed 8,268 sharps injuries that occurred among physicians from 2002 to 2009 and found that more than half (4,972 or 60%) were among medical trainees. They were more likely to be injured during the first quarter of the academic year, and they were most often injured by suture needles or hypodermic needles without safety features.

In fact, the problem of sharps injuries among medical trainees is likely much worse than that because of underreporting, Laramie says. Attending physicians should model good work practices and use of safety devices, she says.

"Make sure that trainees are aware of the sharps reporting procedure and that reporting of these injuries is part of the safety culture," she says. You can make that easier by setting up a system of phone triage if an injury occurs in the operating room. Trainees should be given time to report injuries and receive post-exposure follow up.

Of course, it's also important to provide adequate training in the use of sharps devices.

For example, 14% of injection-related sharps injuries among medical trainees involved recapping of needles — which is expressly forbidden by the Bloodborne Pathogen Standard.

By analyzing injuries, reevaluating devices and improving training, hospitals can reduce their sharps injuries, Laramie says. Each injury represents a health care worker who is at risk of acquiring HIV, hepatitis B or C or another of the 20 or so bloodborne infections.

"My goal is to work myself out of a job," she says. "There would be no need to count needlesticks if they don't happen.

"I always say to people, we collect data and they turn into numbers," she adds. "But we have to remember that there are people behind these numbers. And that's why we do this."

REFERENCES

1. Massachusetts Department of Public Health Occupational Health Surveillance Program. Sharps injuries among hospital workers in Massachusetts, 2002-2009. Available at www.mass.gov/eohhs/docs/dph/occupational-health/sharps-injuries-hospital-workers.pdf. Accessed on May 16, 2012.
2. Panlilio AL, Orelie JG, Srivastava PU, et al. Estimate of the annual number of percutaneous injuries among hospital-based healthcare workers in the United States, 1997-1998. *Infect Control Hosp Epidemiol* 2004; 25:556-562.
3. Massachusetts Department of Public Health Occupational Health Surveillance Program. Sharps Injuries among Hospital Workers in Massachusetts, 2010: Findings from the Massachusetts Sharps Injury Surveillance System. Available at www.mass.gov/eohhs/docs/dph/occupational-health/injuries-hospital-2010.pdf. Accessed on May 16, 2012. ■

ECRI: Sharps injuries among top hazards in HC

Report highlights worst device hazards

Sharps injuries rank eighth in the top 10 device hazards of 2012, according to ECRI Institute, a research organization and evidence-based practice center based in Plymouth Meeting, PA. That places sharps injuries on par with surgical fires (No. 7) and anesthesia hazards due to incomplete pre-use inspection (No. 9).

"It's an ongoing concern we've had," says Chris Lavanchy, engineering director of ECRI's Health Devices Group. "Sharps injuries occur on a regular basis."

Hazards ranked high on the list based on their potential danger, the frequency and number of people affected, and the likelihood that it could result in a high-profile, public incident. Despite progress made on needle safety, about 1,000 needlesticks occur every day, the Centers for Disease Control and Prevention estimates.

“You have health care workers who are injured fairly often,” says **Raylene Ballard**, MS, MT (ASCP), senior project officer with the Health Devices Group.

Safety devices still aren’t available for some procedures. But overall, the safety technology has advanced significantly in the past decade. Reducing sharps injuries requires a renewed commitment, says Ballard. In fact, ECRI is evaluating current devices for a future report, she says.

Here are some steps that hospitals and other health care employers can take to reduce the risk of sharps injuries, according to Lavanchy and Ballard:

Review your injuries. Your needlestick logs contain important information about gaps in sharps prevention. Where are your injuries occurring? With what devices? When are they occurring? “If you have a lot of people being injured while they’re trying to activate a safety device, maybe you need to find something that activates differently,” suggests Ballard.

Define your objectives. Focus on the areas where many of your injuries are occurring. Take a new look at areas where there is no preventive device. Alternate sites, such as home health care, long-term care and physician offices, may need attention because they tend to have lower rates of use of safety devices. Make an action plan based on your objectives, advises Ballard. “You need to prioritize your efforts,” she says.

Evaluate available options. The U.S. Occupational Safety and Health Administration requires you to review your exposure control plan every year. Your sharps safety committee should include representatives from risk management, materials management, nursing, clinical laboratory, and pharmacy, as well as the patient safety committee, frontline healthcare workers and housekeeping staff, says ECRI. Consider various factors in the real-life environment, advises Ballard. For example, consider if someone could use it right-handed and left-handed.

“How easy is it to use in low light condi-

tions? Many times health care workers are delivering health care at night or in low light conditions,” says Ballard. “If your hands are wet, does that affect the way it works? Where are your hands when you activate the device? Is it possible that one hand is pushing or sliding something that puts it closer to the needle? Is there a way to do it that is one-handed?” You also may want to talk to an employee health professional at another facility that uses the device you are trialing, she says.

Boost your training. “You need to make sure everybody on your staff has received adequate training,” Ballard says. If health care workers don’t feel comfortable with the sharps safety device, they may not activate it. Make sure that agency nurses, new trainees, and even nurses who float from a different unit are given enough instruction on the safety devices, she says.

Seek champions for sharps injury prevention. Administrative support is the key to a successful sharps injury program, says Ballard. “If the administration feels this is important, that filters down and it helps to keep everybody onboard,” she says. “The health of our employees is important. Avoiding injuries by using devices that are well-designed is important.” It’s also important for someone to oversee sharps safety with an emphasis on continual improvement, she says. That should include frontline workers who will provide feedback. “You need to try to find the people who have an interest in it and they’ll help keep it moving along,” she says.

[Editor’s note: The ECRI report on top device hazards is available (with free registration) at www.ecri.org/2012_Top_10_Hazards.] ■

OSHA’s top citation: No exposure control plan

Hospital must update plan annually

Failing to keep your exposure control plan up to date could lead to a citation from the U.S. Occupational Safety and Health Administration.

Last year, hospitals were most likely to be cited for not having a written exposure control plan or for failing to document consideration of new devices, according to OSHA data. The

Bloodborne Pathogen Standard also was the most commonly cited standard in inspections of hospitals.

“Once you have a plan and you have devices, your job isn’t complete. You have to be diligent in looking at newer devices each year to see whether you need any updates in your [exposure control] plan,” says **Dionne Williams**, MPH, a senior industrial hygienist at OSHA. “Staying on top of the program is going to be the key to protecting workers,” she says.

You can ask your supplier if there are any new devices with better safety features, Williams advises. The International Healthcare Worker Safety Center at the University of Virginia in Charlottesville maintains a list of safety devices at www.healthsystem.virginia.edu/pub/epinet/new/safetydevicenew.html. A list of devices is also available from Sustainable Hospitals at sustainablehospitals.org/cgi-bin/DB_Index.cgi

If employees fail to activate safety devices, the problem might lie with the device. Using a device that automatically engages the safety feature may address that issue, Williams says.

OSHA does not require employers to purchase more recent devices, only to evaluate them. But if an inspector observes inactivated devices in sharps containers, that might prompt a closer look at the exposure control plan, Williams says.

Sometimes, the problem lies with the training. The hospital is responsible for making sure agency nurses and other contract workers with potential exposure receive training, she says. Physicians also need to be included in annual training, she says.

“Even though they may have very in-depth knowledge about health care and diseases, they still need training on bloodborne pathogens. They still need to know what the facility’s procedures are, and training on the devices,” Williams says.

Training is required if the hospital adds new procedures that pose a bloodborne pathogen hazard or if new devices are introduced. But even when there are no changes, the training helps keep employees aware of the risks, she says. “Employees themselves can get into a routine, which is why we have the requirement to have annual training,” she says.

A dubious Top 10

The most common sections of the Blood-

borne Pathogen Standard cited by OSHA were:

1. 1030(c)(1)(i) Failure to have a written exposure control plan.
2. 1030(c)(1)(iv) Failure to update the exposure control plan annually, reflecting new tasks or procedures.
3. 1030(g)(2)(i) Failure to provide training to employees with occupational exposure.
4. 1030(d)(2)(i) Failure to use safety engineered devices or work practice controls to reduce risk
5. 1030(f)(2)(i) Failure to offer the hepatitis B vaccine to employees with potential exposure.
6. 1030(h)(5)(i) Failure to maintain a sharps injury log.
7. 1030(f)(2)(iv) Failure to obtain a signed declination for employees who decline hepatitis B vaccine.
8. 1030(c)(1)(v) Failure to solicit input of frontline health care workers in the selection of sharps devices.
9. 1030(c)(1)(iv)(B) Failure to annually consider new sharps safety devices.
10. 1030(f)(1)(i) Failure to provide post-exposure vaccination and follow-up for hepatitis B. ■

Will you pledge to stop needlesticks?

Safe in Common seeks new momentum

Would you take a pledge to raise awareness about sharps injuries and use safer devices? A new coalition called Safe in Common is traversing the country, seeking signed pledges as a way to jumpstart a renewed commitment to sharps injury prevention.

“There needs to be an energized national campaign to refocus the conversation and to close the gap,” says **Mary Foley**, RN, PhD, past president of the American Nurses Association and chairperson of Safe in Common. “Let’s celebrate what we did 12 years ago and recognize that the Needlestick Safety and Prevention Act was a very good thing for this country.

“Yet there are still injuries,” she says. “Not all sectors of health care are equally protected. Because of that, the work shouldn’t end. We should do a structured scientific analysis of

The Safe in Common Pledge:

I pledge to support Safe in Common in its campaign to promote and strengthen the Federal Needlestick Safety and Prevention Act, raise awareness of needlestick safety, and utilize safer engineering controls to protect me and my fellow healthcare personnel from unnecessary needlestick injuries. ■

where the gaps exist and keep pushing forward.”

Foley is particularly concerned about employers’ failure to move beyond the initial push for sharps safety. Those first devices provided much-needed protection, but newer devices are even more effective, she says. Specifically, she promotes “passive” devices that are activated through the natural use of the device rather than “semi-safe” devices that require activation — and could remain hazardous.

“Let’s refresh what’s out there in the field. Give health care workers a new look at newer products across the line, in every area,” says Foley, who is director of the Center for Nursing Research and Innovation at the University of California San Francisco School of Nursing.

Nurses are relieved to hear someone putting needlestick safety back on the national agenda, says Foley. “We’re getting thousands and thousands of pledges. People are embracing the notion that somebody’s talking about this again,” she says.

Safe in Common is also collecting stories from nurses who have sustained a needlestick. She wants employers and health care workers alike to understand the cost of a needlestick — both financially and emotionally. “If activities don’t have a consequence, then they don’t have priority,” she says.

Nurses like **Karen Daley**, current president to ANA, came forward years ago to tell their stories of needlesticks that led to life-threatening infection. Although the risk has been reduced with safer devices and HIV treatment, Foley wants nurses to know that the hazard persists.

“I know for a fact that there have been individuals who have been infected subsequent to 2000,” she says. “I know there are anecdotal stories out there that would convince people that the problem still exists. I hope to find somebody who is willing to have their story told.”

Safe in Common also plans to launch webinars about sharps safety. “It is the informed user that will be a safer user,” she says.

[Editor’s note: More information about the Safe in Common campaign, including the pledge, is available at www.safeincommon.org.] ■

How and why to fix your respirator program

HCWs still confused about respirators

Gaps in your respiratory protection program can create unnecessary hazards for your employees. A survey of hospitals in California and the Midwest has revealed those weaknesses. For example, health care workers often receive minimal training and are confused about which respirator to use for aerosol-generating procedures.

“Wherever you use respirators, [you need to have] a full comprehensive respiratory protection program that ensures you’re using them effectively,” says **Barbara Materna**, PhD, CIH, chief of the Occupational Health Branch of the California Department of Public Health and a lead investigator in the Respirator Use Evaluation in Acute Care Hospitals (REACH) project.

The H1N1 pandemic was a watershed moment for hospitals, as they suddenly needed to use respirators to protect health care workers from a novel virus, she says. Hospitals coped with sudden demand, the need to quickly train and fit-test employees, and spot shortages.

“That whole experience really did increase awareness of the need and appropriate use of respiratory protection,” says Materna. “We can’t become complacent now and go backwards. We need to maintain that level of preparedness.”

One bright spot: Hospitals seem to be largely in compliance with annual fit-testing. In the California survey of personnel at 15 hospitals, 87% of health care workers and 98% of unit managers said fit-testing occurred at hire and then annually.

Compliance was not as uniform in Minnesota and Illinois. “It did seem that fit-testing was generally happening annually, though that varied by hospital,” says **Lisa Brousseau**, ScD, CIH, associate professor in the School of Public

Health at the University of Minnesota in Minneapolis and principal investigator for the REACH survey in Minnesota and Illinois. At hospitals in Minnesota, 9% of health care workers said they had not been fit-tested, and 15% said a fit-test wasn't required before wearing a respirator.

In a REACH survey in Michigan, only 45% of managers and 76% of health care workers said fit-testing occurred at hire and then annually.

Not just for TB

Typically, hospitals have considered the respiratory protection program to be an element of their tuberculosis program. They may have less awareness of the need for respirators with other airborne diseases.

"Oftentimes, what they would give us was their tuberculosis plan, and they would say 'Here's our respirator plan,'" says Brousseau. "Inside the tuberculosis plan would be something related to respirators. Only rarely would you see a separate program called the respiratory protection program."

In California, the Aerosol Transmissible Disease standard clearly spells out the need for respirators to protect against novel infectious organisms and other airborne diseases. It includes a chart that delineates which diseases require airborne or droplet precautions.

Because of the ATD standard, hospitals in California are more aware of the requirements for respirators, but problems remain with the written programs, says Materna.

"A number of the components that are required were missing," she says. Most concerning: 47% had not designated a program administrator. About 40% did not address how health care workers should select the correct respirator for different types of hazards. And two-thirds didn't include any information about program evaluation.

"The respiratory protection standard [of the U.S. Occupational Safety and Health Administration] says that program evaluation needs to be done periodically and employee input needs to be included," says Materna. "A labor-management safety committee is a really good forum to have discussions about what's working and what could be improved."

Brousseau found similar problems with written programs in Minnesota and Illinois. "Almost nobody is doing program evaluation,"

she says. "You're supposed to audit your program periodically and see if things are happening the way they're supposed to be happening."

Airborne and droplet confusion

Health care workers understand that they need to wear a fit-tested N95 respirator or greater protection if they are in close contact with a patient with tuberculosis. They are more confused about what they need to wear when performing an aerosol-generating procedure.

California's Aerosol Transmissible Disease standard requires the use of a powered air-purifying respirator (PAPR) during aerosol-generating procedures with patients who have TB. Some health care workers were uncertain about the use of PAPRs.

During the H1N1 pandemic, the Centers for Disease Control and Prevention (and the California Department of Public Health) advised hospitals to use N95s in patient care. When H1N1 became seasonal influenza, the N95s were only recommended for aerosol-generating procedures and surgical masks are recommended for routine care.

In California, about 20% of health care workers reported still wearing N95s with flu patients. In Minnesota, where the Department of Health still allowed hospitals to use surgical masks with pandemic H1N1, there is even more confusion, says Brousseau.

"There's a general lack of understanding about what's an airborne disease and what's a droplet disease," says Brousseau. "Where does seasonal influenza fall? It seems it sort of falls in between. It's sort of a droplet disease when it's close contact. It's sort of airborne when it's an aerosol-generating procedure. I can see why people are very confused about it."

Is there a program administrator?

Some other suggestions for improvement from Materna and Brousseau:

Assign a program administrator for your respiratory protection program. "In large hospitals, respiratory programs are often divided up. Employee health and safety does some things, infection control does some things, unit managers are expected to do some things and those groups are not always working together," says Brousseau.

Conduct a risk assessment. That's the only

way to know who may need to wear a respirator, says Brousseau.

Make sure your annual training is adequate. In the California survey, about 40% of health care workers said their training lasted only 1 to 15 minutes. Many respirator wearers failed to do a user fit check when they donned the respirator, possibly because they hadn't received proper training, says Brousseau.

Give employees a written card or a sticker for their badges with their respirator model and size. In California, 24% of workers only received a verbal instruction about which N95 they should wear.

Still, Brousseau found some bright spots in the surveys.

"We didn't run into any hospital where they hadn't heard of respirators," she says. "That's a step up from 10 or 15 years ago.

"But we did have some hospitals say to us, 'We never see anybody that requires us to wear a respirator.' They were sure an exposure was never going to happen. That made us worry a little bit because tuberculosis can happen anywhere, and so can measles and pandemic influenza," she says

[Editor's note: Inserted in this issue is a respiratory protection checklist created by health officials in California that can be used to evaluate your program.] ■

Suspect TB, protections failed, HCWs infected

Lessons of an outbreak

The basic premise of worker safety is to provide layers of protection. If each layer is sufficiently flawed, the protection is compromised. That is the lesson of a recent Health Hazard Evaluation in an Arizona hospital, where 18 employees had a TB skin test conversion in 2011 and one employee developed active tuberculosis.

The hospital-associated outbreak began in January 2011 when a patient came to the emergency department with respiratory symptoms but wasn't placed in an airborne infection isolation room. A nursing assistant working in the ED would later develop active tuberculosis, but that diagnosis also was

delayed. The employee complained of cough and shortness of breath on March 8 but wasn't diagnosed with TB until May 11.

The first line of defense, recognizing the possible symptoms of tuberculosis and promptly placing those patients in an airborne infection isolation room, had failed. In fact, 10 of the 18 employees with a TB conversion had worked during the original patient's stay when the patient was not in isolation.

"The problem really occurred when that index patient was not in isolation and employees did not know they needed to wear respirators," says **Maria de Perio**, MD, medical officer with the Hazard Evaluations and Technical Assistance Branch of the National Institute for Occupational Safety and Health (NIOSH). She investigated the cases with industrial hygienist R. Todd Neimeier, MS, CIH.

Granted, this was an atypical case of tuberculosis. The patient actually came to the hospital because of a fall, says de Perio. She had non-specific symptoms and did not have the classic signs, such as night sweats, unexplained weight loss and cough with bloody sputum.

However, the NIOSH investigation also found that employees were confused about the differences between latent TB infection and active TB. Their TB training occurred as a part of overall infection control training. "We recommended improving training to the hospital staff to educate them about the typical and atypical symptoms of active TB and the risk factors for active TB," she says.

Is it really negative pressure?

Numerous other factors contributed to the outbreak. Electronic door pressure monitors had not been re-calibrated since they were installed 12 years before. When the NIOSH investigators checked them, six of the 18 rooms were not operating under negative pressure.

There's a simple way to check that a room is under negative pressure, says de Perio. "You basically just hold a tissue and open the door. If the tissue is blown in, that means the air is being sucked in and it's under negative pressure," she says.

The doors between the anteroom and the hallway also were often left open, they found.

The hospital used some powered air-purifying respirators (PAPRs) to reduce the need for

fit-testing. But the investigation found problems with the fit-testing and the use of N95s. Almost a third of the 39 employees interviewed (12, or 31%) reported they had worn a respirator they weren't fit-tested for sometime during their employment.

Investigators observed two fit tests. In one, the employee failed to place the straps correctly, but wasn't corrected by the fit-tester. The fit-test exercises weren't timed and the aerosol (saccharin) wasn't replenished, as necessary.

There were also problems with the TB screening program. In 2010, 16% of employees failed to return to have their skin tests read. From 2007 to 2011, compliance with TB skin testing ranged from 71% to 94% for employees with face-to-face patient contact and 34% to 93% for employees without face-to-face patient contact.

Why you need an EH professional

Better oversight of the TB program would help prevent transmission, the NIOSH investigators advised. In fact, at this hospital, which had about 1,000 employees, the infection preventionist was stretched thin. There was no employee health professional.

"She was responsible for infection control for the whole facility (inpatient and outpatient), and she was also responsible for everything related to employee health, not just TB-related. We thought it would be a good idea to separate out these duties," de Perio says.

In this case, nursing assistants were the most likely to have a TB skin test conversion. They were the employees who often spoke to patients when they arrived in the ED, and in this hospital they worked in close contact as interpreters.

Using respiratory hygiene, including providing face masks to patients who are coughing, could help prevent transmission, says de Perio.

"CDC has good recommendations for preventing transmission of TB in health care facilities," she says. "Facilities should be aware of that and know those well. It's great to have a written policy, but it's also important to make sure that policy is carried out, as well."

[Editor's note: Infection control tools and guidelines can be found at www.cdc.gov/tb.] ■

CNE INSTRUCTIONS

Nurses participate in this CNE/ CME program and earn credit for this activity by following these instructions.

1. Read and study the activity, using the provided references for further research.
2. Log on to www.cmecity.com to take a post-test; tests can be taken after each issue or collectively at the end of the semester. *First-time users will have to register on the site using the 8-digit subscriber number printed on their mailing label, invoice or renewal notice.*
3. Pass the online tests with a score of 100%; you will be allowed to answer the questions as many times as needed to achieve a score of 100%.
4. After successfully completing the last test of the semester, your browser will be automatically directed to the activity evaluation form, which you will submit online.
5. Once the completed evaluation is received, a credit letter will be e-mailed to you instantly. ■

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 the clinical, administrative and regulatory issues particular to the care of hospital employees affect health care workers, hospitals, or the healthcare industry at large;
- cite solutions to the problems faced in the care of hospital employees based on expert guidelines from relevant regulatory bodies, or the independent recommendations of other employee health professionals.

COMING IN FUTURE MONTHS

- The high cost of obesity in the workplace
- GAO: OSHA takes too long for rules
- The occupational impact of asthma
- Is there bullying in your workplace?
- How BJC Healthcare created healthier workers

CNE QUESTIONS

1. Which of the following employee vaccinations are mentioned on the draft CMS infection control survey tool?
 - A. Hepatitis B
 - B. MMR
 - C. Tdap
 - D. Varicella
2. According to the Massachusetts Department of Public Health Occupational Health Surveillance Program, what proportion of sharps injuries occur with devices that lack safety features?
 - A. 12%
 - B. 32%
 - C. 45%
 - D. 57%
3. What section of the Bloodborne Pathogen Standard does the U.S. Occupational Safety and Health Administration most commonly cite among hospital employers?
 - A. Failure to use safety engineered devices
 - B. Failure to maintain an exposure control plan
 - C. Failure to evaluate new devices
 - D. Failure to provide bloodborne pathogen training
4. The Respirator Use Evaluation in Acute Care Hospitals (REACH) project in California, Minnesota, Illinois and Michigan revealed what common deficiency in hospital respiratory protection programs?
 - A. Hospitals are not fit-testing workers.
 - B. Hospitals do not have enough respirators.
 - C. Hospitals are not evaluating the respiratory protection programs.
 - D. Hospitals are primarily using surgical masks.

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Respiratory Protection Program Evaluation Checklist & Instructions for Use

Source: California Department of Public Health, Occupational Health Branch December 2011

- | | |
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| <p>1 Y N Is there a written policy which acknowledges employer responsibility for providing a safe and healthful workplace?</p> <p>2 Y N Has an individual been designated as the respiratory protection program administrator (RPA) with overall responsibility for development and implementation of the respiratory protection program? Does the written respiratory protection program include the following required elements? (items 3-12)</p> <p>3 Y N written designation of a program administrator;</p> <p>4 Y N an evaluation of hazards and identification of appropriate respirators for specific job classifications and/or tasks;</p> <p>5 Y N procedures for medical evaluations of employees required to use respirators;</p> <p>6 Y N fit testing procedures for tight-fitting respirators;</p> <p>7 Y N procedures for proper use of respirators;</p> <p>8 Y N procedures and schedules for storage, inspection, and maintenance of respirators;</p> <p>9 Y N procedures for training employees regarding the respiratory protection program;</p> <p>10 Y N a description of the training curriculum;</p> <p>11 Y N procedures for voluntary use of respirators;</p> <p>12 Y N procedures for regular evaluation of the program;</p> <p>13 Y N Is the written program readily available to any employee included in the program?</p> <p>14 Y N Is there a record of medical clearance for each employee required to wear a respirator?</p> <p>15 Y N Is there a record of a fit test or fit test screening for each respirator user from within the last year?</p> | <p>16 Y N Have users been trained in the proper use, maintenance, and inspection of respirators?</p> <p>17 Y N Are workers prohibited from wearing respirators with a tight-fitting facepiece if they have facial hair or other characteristics which may cause face seal leakage?</p> <p>18 Y N Are respirators stored appropriately so as to prevent them from becoming damaged or deformed?</p> <p>20 Y N Are the users wearing the respirator for which they have passed a fit test?</p> <p>21 Y N Are N95, or more protective, respirators always worn by employees in areas occupied by a suspected or confirmed case of airborne infectious disease?</p> <p>22 Y N Are PAPRs always worn by employees in areas where a high hazard procedure is being performed on a suspected or confirmed case of airborne infectious disease?</p> <p>23 Y N Are N95, or more protective, respirators always worn by employees in areas where a high hazard procedure is being performed on a suspected or confirmed case of seasonal influenza?</p> <p>24 Y N Are respirators inspected by the users before each use?</p> <p>25 Y N Are respirators being donned and doffed correctly?</p> <p>26 Y N Are PAPRs cleaned and disinfected as often as necessary, including before being worn by a different individual?</p> <p>27 Y N Is there a mechanism for users to report problems with respirator use?</p> <p>28 Y N Is there a mechanism for users to provide feedback about the effectiveness of the program?</p> |
|--|--|

Checklist Instructions

This checklist should be completed and used to update any deficiencies in the program on a regular basis. Any changes made to the program should be documented and kept on file with the written program, which must be available to all employees. List the changes or improvements that need to be made to the program.

1. In California, every employer has a legal obligation to provide and maintain a safe and healthful workplace

for employees, according to the California Occupational Safety and Health Act of 1973. This obligation should be stated in writing as a reason for developing and implementing a respiratory protection program (RPP), and can serve as the opening paragraph of your written RPP. If you do not have such a policy in writing for your facility, it would be a good idea to develop one as a preface to all of your health and safety programs.

Question 2 asks whether management has desig-

nated an appropriate person to be held accountable for implementing the respiratory protection program. The Cal/OSHA standard requires the Respirator Program Administrator (RPA) to be “suitably trained.” The RPA should have an understanding of the principles of respiratory protection and of the requirements of the Cal/OSHA respiratory protection standard (Title 8 section 5144). If your RPA is not a health and safety professional, he/she might need some additional training to effectively carry out their responsibilities.

The Cal/OSHA respiratory protection standard (Standard) requires all employers with employees who are required to use respiratory protection to have a written RPP. Questions 3-12 refer to the written program. Check the written RPP to be sure each of the required elements is present and in compliance with the Standard.

3. One individual should be identified either by name or job title as the RPA. If additional people have key responsibilities for the RPP, their names and roles may be listed as well.

4. The hazard evaluation/respirator selection section of the RPP should include a list of job titles and/or tasks and identify the type of respirator required for each. This should just be general type (e.g., N95 or PAPR), not specific make and model.

5. Written procedures should address how employees are to obtain and complete the questionnaire, who will evaluate the questionnaire, who will do exams when necessary, how clearance will be reported and how records will be kept. You may attach or copy and paste the questionnaire from the standard.

6. Written fit test procedures should address the following questions. Who will do the fit test? What protocol will be used? You may copy and paste or attach the protocol from the standard. What will happen if someone fails the fit test? How are records kept?

7. Procedures for use should include policies for prohibition of use (e.g., facial hair), procedures for proper use including inspection of the respirator, seal checks, proper donning and doffing technique, etc.

8. Procedures should address appropriate storage, maintenance, disposal and/or cleaning and disinfecting of all types of respirators used at the facility.

9. The training section of the RPP should include the procedures for training (e.g., who will do it and how often).

10. The training section should also include the training curriculum, which must include: the hazards to which employees are exposed; the procedures for proper use and maintenance of respirators; and the limitations of the respirators being used.

11. In instances when respirators are not required by Cal/OSHA or the RPP, the Standard allows employers to provide respirators to employees who choose to wear

them voluntarily. When such voluntary use is allowed, the employer must implement procedures to ensure that the use of the respirator does not present a hazard to the employee, including medical clearance.

12. Procedures for periodic evaluation of the RPP must be in writing and must include procedures for obtaining feedback from employees as part of the evaluation process.

Question 13 addresses the requirement that the written RPP must be available for review to anyone in the program. It may be in a central file accessible to employees, or it may be available in electronic format, but users must know where to find it.

In order to answer questions 14 and 15, you will need to pull the records on medical evaluations and fit tests and make sure that they are comprehensive. If records are missing for any employees wearing respirators, you must determine immediately whether the records are simply missing, or if the person has really not been evaluated or fit tested. Any time you discover missing records, you should rectify this immediately.

Question 16 may also be answered by pulling records if your facility is tracking who has been trained. If there is not an easy way to obtain this information, you should consider either tracking this electronically, or keeping a training roster in a file so that you can easily determine who has and has not been trained. If there is anyone wearing a respirator who has not been trained, this should also be rectified immediately.

In order to answer questions 18–26, you will need to go to the units and observe the program in action. Watch carefully to ascertain whether or not the procedures in the written program are being followed. If they are not, you will need to determine whether additional training is needed or whether your procedures should be revised.

Questions 27 and 28 address procedures for communication and feedback that should be in place for employees covered by the RPP.

Question 27 addresses whether or not there is a way for users to report any specific problems they are having on a day-to-day basis. Is their model and size of respirator unavailable? Are the straps of their N95 breaking during donning? Are they experiencing discomfort or difficulty breathing when wearing respirators for required time periods? Are they unable to get a good seal when they perform a seal check? Do they know who to report these problems to?

Question 28 addresses whether or not employees are involved in the periodic evaluation of the program. Is there a way for them to communicate general problems or ideas for improvement to the RPA so that appropriate changes to the program will be considered when the program is evaluated? ■