

# Occupational Health Management™

*A monthly advisory for occupational health programs*

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### It's official: JCAHO adds employee health standard

It's just a simple sentence in the accreditation manual, but the Joint Commission on Accreditation of Healthcare Organizations has given employee health a new visibility with its own standard. The change in the 2001 manual comes as some occupational health experts express concern that the U.S. Occupational Safety and Health Administration has a weaker mandate under the Bush administration. . . . . cover

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## Congratulations! Employee health gets its very own Joint Commission standard

*JCAHO focus is key as some see a weaker OSHA*

**T**he Joint Commission on Accreditation of Healthcare Organizations in Oakbrook Terrace, IL, has placed a sharper focus on employee health by reorganizing existing requirements into a separate standard for 2001.

The new standard, which states simply, "The hospital plans for worker safety," isn't the full-blown set of standards many occupational health professionals would like to see.

Nonetheless, the change gives employee health greater visibility in the Joint Commission hospital accreditation manual. The change is especially welcome at a time when some worry that the Occupational Safety and Health Administration's (OSHA) enforcement mandate has been weakened under the Bush administration.

"[OSHA]'s just in limbo," says **Kae Livsey, RN, MPH**, public policy and advocacy manager for the American Association of Occupational Health Nurses in Atlanta, who notes that as of mid-June, OSHA still had no permanent administrator. "[The agency's] just hanging out there in the breeze with no direction and an inability to do anything. It's a pretty frustrating time."

### *The battle is raging*

Each OSHA regulation becomes a battleground. Fresh from victory in killing the ergonomics standard, lawyers for the National Association of Manufacturers filed suit against the agency's

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American Association of Occupational Health Nurses in Atlanta. The Department of Health and Human Services enacted the rules to carry out the Health Insurance Portability and Accountability Act of 1996, which was focused on preventing the misuse of electronically transmitted medical information . . . . . 77

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record-keeping standard. They assert the standard would unfairly inflate injury reports by including nonwork-related injuries that may be aggravated by work activities.

Meanwhile, worker advocates vowed to renew their push for an ergonomics standard. The Bureau of Labor Statistics reported a total of more than 582,000 work-related musculoskeletal disorders (MSDs) for 1999, which represented one in three of all workplace injuries requiring time away from work. (See related article, p. 76.)

“One thing we’re good at is being tenacious,” says **Bill Borwegen**, MPH, occupational health and safety director of the Service Employees International Union (SEIU) in Washington, DC. “We’ve only been working on this [ergonomics standard] for 10 years. I feel we’re just getting started.”

***Be prepared for questions from JCAHO***

Hospitals may no longer need to worry about OSHA’s ergonomics standard, but they could face questions, nonetheless, from Joint Commission surveyors.

As part of a long-standing partnership with OSHA, Joint Commission surveyors receive training on that agency’s requirements, notes **John Fishbeck**, associate director of the department of standards for the Joint Commission.

Even without an ergonomics standard, a surveyor might ask to look at injury data, notice a large number of patient handling injuries, and ask what measures the hospital has taken, he says.

In the 2001 accreditation manual, a new Environment of Care standard (EC.1.1.1) states that “the hospital plans for worker safety.” The standard is very brief; other employee-health-related issues are still imbedded in other sections, such as infection control.

The introduction to the Environment of Care section in the Joint Commission manual mentions visitor and staff safety as well as patient safety, says Fishbeck. (See box, p. 75.)

“The requirements we highlighted for 2001 really were existing requirements, buried within existing standards,” he says. “We identified the ones relating to workers’ safety and put them in a separate standard to give them more visibility.”

The new language is an important addition, according to **Geoff Kelafant**, MD, MSPH, FACOEM, medical director of the occupational health department at the Sarah Bush Lincoln Health System in Mattoon, IL. Kelafant was a

consultant to the Joint Commission Committee on Healthcare Safety and supported the creation of separate employee health standards. "There is now explicit verbiage that says you must do this," he says. "It doesn't say just TB or bloodborne pathogens; it says worker safety."

Kelafant, who is chairman of the Medical Center Occupational Health Section of the American College of Occupational and Environmental Medicine in Arlington Heights, IL, and coordinates an e-mail list on medical center occupational health, notes that occupational health physicians and nurses are reporting more requests for information from Joint Commission surveyors.

This year, as environment of care provisions are added to the new patient safety standards, again there will be an eye toward overall safety, says Fishbeck. "It's important that this [focus on patient safety] be integrated in how you maintain safety for visitors and staff as well," he says.

### ***Streamlining the record-keeping standard***

Meanwhile, several OSHA initiatives were caught in the transition between the Clinton and Bush administrations. OSHA's bloodborne pathogen standard became effective April 18, as expected. But the record-keeping rule remained under review, along with other regulations that had been issued in the last days of the Clinton presidency. As a part of that review, OSHA pulled back the paperwork reduction information sent to the Office of Management and Budget as a part of routine rulemaking.

OSHA's record-keeping standard, which would take effect in 2002, involves new streamlined forms and incorporates the reporting of needlesticks. It includes a privacy provision and clarifies what injuries are work-related and the definition of first aid. The standard redefines how employers should count lost workdays.

The record-keeping rule also was designed to facilitate the ergonomics standard with new reporting requirements for MSDs, notes **Baruch Fellner**, a Washington, DC, lawyer who represents the National Association of Manufacturers and the National Coalition on Ergonomics.

"One of the things we have found is a continuous decline of MSDs over the last 10 years," he says. "The effect of this new record-keeping standard would be to reverse that so proponents of the ergonomics standard could say, 'See what an epidemic we have.'"

OSHA's proposed tuberculosis standard seems

indefinitely stalled, and some observers wonder if OSHA will shy away from further rulemaking.

"For those of us concerned about the health and safety of workers, it's really frustrating to just see [rules] sitting on hold," says Livsey.

### ***Training grants would decline***

The president's proposed budget cuts funds for developing safety and health standards by \$1.2 million to \$13.9 million for FY 2002. Training grants also would decline by \$3 million, while the enforcement budget would rise by \$3 million.

In a release explaining the proposed budget, OSHA said it will "continue to base all standards on clear and sensible priorities and review existing rules to revise or eliminate obsolete and confusing standards or provisions of standards."

Overall, the agency's budget of \$425.8 million

## **Joint Commission Environment of Care Excerpt**

The goal of this function is to provide a safe, functional, supportive, and effective environment for patients, staff members, and other individuals in the hospital. This is crucial to providing quality patient care and achieving good outcomes. . . .

### **Standard EC.1.1.1**

The hospital plans for worker safety.

### **Intent of EC.1.1.1**

The hospital identifies activities to reduce the risk of worker injuries. Worker safety planning includes identifying processes for reporting and investigating all incidents of occupational illness, and personnel injury.

In addition, worker safety planning establishes an orientation and education program that addresses:

- general safety processes;
- area-specific safety;
- specific job-related hazards;
- provision of safety-related information through new employee orientation and continuing education.

### **Examples of Evidence of Performance for EC.1.1.1**

- Staff interviews
- Incident reports of work-related injuries/illnesses
- Orientation and staff education plans

represents a slight increase of \$400,000, and a reduction of 94 full-time equivalent employees.

OSHA officials insist the agency's commitment to worker safety is as strong as ever. "The safety and health of America's workers is vital to our nation's overall well-being and is my first priority," Labor Secretary **Elaine Chao** said in a statement.

Ergonomics, a major battleground for both unions and industry, promises to be a test of that commitment. After Congress rescinded the ergonomics standard, both Bush and Chao expressed support for a new effort to reduce MSDs.

### ***Finding a solution that works***

"This is a serious problem," said Chao. "We are addressing it head-on, and we intend to find a solution that works."

Sen. John Breaux (R-LA) introduced a bill calling for OSHA to develop a new ergonomics standard within two years, but directing the agency to exclude injuries that are pre-existing but

aggravated by work or that occur outside work.

It also would prohibit the agency from requiring an expansion of existing state workers' compensation protection — a particularly contentious part of the rescinded standard. Meanwhile, Sen. Arlen Specter (R-PA) scheduled hearings in April on the need for ergonomics standards.

### ***Mobilizing the troops***

The SEIU began shifting to a new strategy that will target state and local legislation, a tactic it has used effectively with other issues. A state-by-state effort gained the passage of 17 state laws on safer needle devices and ultimately led to federal legislation.

"The bottom line is we were outgunned 10 to 1 by corporate money on the last go-round [with ergonomics]," says Borwegen. "We didn't mobilize like industry mobilized. We're going to keep trying. The government cannot continue to ignore a hazard that leads to one-third of all workplace injuries." ■

## **Injuries put RNs in top 10 of riskiest jobs**

*MSDs account for one of three injuries, BLS says*

**H**ospitals have some of the nation's riskiest occupations, according to the latest injury data from the Bureau of Labor Statistics (BLS).

More than 44,000 nurses' aides, orderlies, and attendants suffered from work-related musculoskeletal disorders (MSDs) in 1999, the highest number of any occupation.

Registered nurses had some 13,000 MSDs. Together, with those other health care workers, they accounted for one-tenth of the nation's MSDs that led to lost workdays.

The rates for registered nurses rose slightly,

while they declined for industry as a whole.

"Many [health care] systems have a long way to go in terms of preventing injuries," says **Geoff Kelafant**, MD, MSPH, FACOEM, medical director of the occupational health department at the Sarah Bush Lincoln Health Center in Mattoon, IL.

The BLS data showed the following injury trends (**see chart, below**):

- Strains, sprains, and tears accounted for about 40% of all injuries resulting in time away from work.
- Carpal tunnel cases with lost work time rose by 6% after six years of steady decline.
- Among major disabling injuries and illnesses, median days away from work were highest for carpal tunnel syndrome (27 days) and fractures (20 days). ■

**Number of Occupational Injuries and Illnesses (in thousands)  
Involving Time Away from Work for Selected Occupations, 1993-1999**

<b>Occupation</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Nursing aides, orderlies	103.9	101.8	100.6	93.6	91.3	84.1	75.7
Registered nurses	31.4	29.6	27.8	28.9	27.3	25	25.7

*Source:* Bureau of Labor Statistics, Washington, DC.

# New privacy rules leave EH records unprotected

*Occupational groups urge Congress to close gap*

New privacy rules will have a major impact on how hospitals handle medical information, but will leave employee health records largely unprotected.

The rules enacted by the Department of Health and Human Services (HHS), designed to guard against misuse of medical information, largely apply to transactions that are conducted electronically. Since employees do not file medical claims when they receive immunizations or seek opinions from employee health professionals, those records would not fall under the rule's provisions, says **Kae Livsey**, RN, MPH, public policy and advocacy manager for the American Association of Occupational Health Nurses (AAOHN) in Atlanta.

AAOHN and the American College of Occupational and Environmental Medicine urged Congress to extend privacy protection to such employee health records.

"What we would like to see is legislation that would extend the protections of this rule to all health care providers regardless of whether or not they're engaged in what are called 'standard transactions,'" says Livsey.

According to the rules, which stem from the Health Insurance Portability and Accountability Act of 1996, hospitals, health plans, and other providers must:

- Educate patients on privacy, including a written explanation of how the information will be used and disclosed.
- Provide patients access to records and a history of all disclosures, and allow them to make amendments.
- Receive specific consent for nonroutine and nonhealth care uses of information and allow patients to restrict the use and disclosure of information.
- Provide the minimum amount of information necessary for disclosure for purposes other than treatment.
- Adopt written privacy procedures and ensure that "business associates" likewise protect patient privacy.
- Train employees and designate a privacy officer.

- Establish grievance procedures for privacy complaints.

At a congressional hearing in February, a representative of the American Hospital Association asserted that the privacy regulation would be prohibitively expensive and burdensome.

"It is essential to fix requirements in the privacy rule that could impede patient care or disrupt essential hospital operations, and to that end, Congress should encourage HHS to reopen portions of the new privacy rule for comment," said **John Houston**, information services director, data security officer, and assistant counsel for the UPMC Health System in Pittsburgh.

## ***Additional staff will be required***

Tracking disclosures would require hospitals to install new information technology, Houston said. The regulation would require the hiring of additional staff to handle privacy issues and reopen contracts with "attorneys, auditors, vendors, suppliers, and consultants, to include the hospital's privacy practices with which each business associate must comply," Houston said.

Meanwhile, the AAOHN pointed out that the rules leave significant gaps that may require legislation to correct.

An employee's medical information in a company wellness program or pre-placement physical wouldn't be covered by privacy rules, notes Livsey. In fact, if another physician treated a patient for breast cancer, then sent the employee back to work on restricted duty, the information would no longer be covered, she says. "Once that information is sent to the employee health nurse, since the employee health nurse is not a covered entity, the information isn't anymore, either." ■

# Vaccine could have saved lab workers' lives

*Stricken sites give shots, but CDC questions need*

In unrelated cases that shocked medical communities in Alabama and Michigan last year, two experienced and highly regarded laboratorians died suddenly after occupationally acquiring a pathogen for which there is an available vaccine: *Neisseria meningitidis*.

## Fast Facts on Meningitis

- ✓ **Infection:** Meningitis is an infection of the fluid in the spinal cord and surrounding the brain. Viral meningitis is generally less severe and resolves without specific treatment, while bacterial meningitis can be quite severe and may result in death, brain damage, or hearing loss. For bacterial meningitis, it is also important to know which type of bacteria is causing the meningitis because antibiotics can prevent some types from spreading and infecting other people. Before the 1990s, *Haemophilus influenzae* type b (Hib) was the leading cause of bacterial meningitis, but new vaccines being given to all children as part of their routine immunizations have reduced the occurrence of invasive disease due to *H. influenzae*. Today, *Streptococcus pneumoniae* and *Neisseria meningitidis* are the leading causes of bacterial meningitis.
- ✓ **Diagnosis:** High fever, headache, and stiff neck are common symptoms of meningitis in anyone over the age of 2. Symptoms can develop over several hours, or they may take one to two days. Other symptoms may include nausea, vomiting, discomfort looking into bright lights, confusion, and sleepiness. The diagnosis is usually made by growing bacteria from a sample of spinal fluid. Identification of the type of bacteria responsible is important for selection of correct antibiotics. Bacterial meningitis can be treated with a number of effective antibiotics. It is important, however, to start treatment early in the course of the disease. Appropriate antibiotic treatment of most common types of bacterial meningitis should reduce the risk of dying from meningitis to below 15%. The risk is higher among the elderly.
- ✓ **Transmission:** Meningococcal organisms are relatively common and can be asymptotically carried in the nose or throat. However, for reasons that are not always clear, sometimes the bacteria can cause infection. Though not as contagious as the common cold or flu, meningitis can be spread through the exchange of respiratory and throat secretions (i.e., coughing, kissing). The bacteria that cause meningitis may spread to other people who have had close or prolonged contact within someone infected. People in the same household or day-care center, or anyone with direct contact with a patient's oral secretions would be considered at increased risk of acquiring the infection. Close contacts of a person with meningitis caused by *N. meningitidis* should receive antibiotic prophylaxis.

Source: Centers for Disease Control and Prevention, Atlanta; Michigan Department of Community Health, Lansing.

On July 15, 2000, a 35-year-old hospital laboratory technician in Huntsville, AL, was working in his yard when he began to feel nausea and pain that rapidly worsened.

### ***Workers' deaths came quickly***

He died the next day after reporting to the emergency department of Crestwood Medical Center, where he was a microbiologist and laboratory safety officer. He had been working with a meningococcal isolate from a 12-year-old patient in the days prior to his death. (See **related article, p. 81.**)

The isolate from the source patient was matched by a DNA fingerprint.

Five months later on Dec. 23, a 52-year-old female laboratory worker with 28 years experience at the Department of Community Health in Lansing, MI, began to feel ill after working with a patient specimen the previous day in the lab.

Her condition rapidly deteriorated, and she died on Christmas Day. Isolates from the patient

and the worker also were identical.

"It's shocking to think anything could happen that quickly," says **Geralyn Lasher**, director of communications at the Michigan Department of Health in Lansing. "We provided grief counseling for her co-workers."

No obvious breach in infection control was reported in either case, and the lab workers were described as experienced and competent professionals with good technique.

One theory is that they generated an aerosol through manipulations of the pathogen in the lab and unknowingly inhaled it. Another possibility is that they contaminated their hands and then touched mucous membranes such as the eyes or nose.

A third fatal meningococcal death in a laboratory worker in Idaho occurred in January 2001, but the case has not been confirmed as occupationally acquired pending genotyping comparisons with the patient specimen, *Occupational Health Management* has learned.

The infecting pathogen in the two confirmed cases was *N. meningitidis* serogroup C. Though

not 100% efficacious and limited to only certain groups of meningitis, the vaccine currently available in the United States covers groups A, C, Y, and W-135.

Because the vaccine covers serogroup C — the type of meningitis that killed the laboratorians — the hard truth is that immunization could well have saved their lives.

But the epidemiological perspective, as is often the case, is more complicated. The current guidelines from the Centers for Disease Control and Prevention (CDC) state “research, industrial, and clinical laboratory personnel who routinely are exposed to *N. meningitidis* in solutions that may be aerosolized should be considered for vaccination.”<sup>1</sup> (See box, p. 78.)

### ***Many lab workers won't see meningitis***

Meningitis caused by *N. meningitidis* results in some 3,000 community-acquired infections annually in the United States, but many clinical laboratorians are not likely to encounter it “routinely” enough to warrant vaccination under the CDC recommendation.

“[Crestwood Medical Center] lab hadn't seen a case of meningococcal meningitis come through in the last four or five years,” says

**Brian Whitley**, MPH, epidemiologist with the Alabama Department of Public Health in Montgomery. “So even if they were aggressive, it's not likely they would have vaccinated anyone. They have made the decision to vaccinate their laboratory employees now.”

*“You have to keep in mind, although this is obviously a worrisome thing — in fact, I suspect that it is more frequent than we are finding out — it is still a relatively rare occurrence.”*

Indeed, **Suzanne Stanfield**, RN, MSN, CIC, infection control coordinator at Crestwood, says it is her opinion that it is time to offer the meningococcal vaccine to lab workers nationwide. “We are offering it to our laboratory workers,” she says. “It's not that expensive — about \$75 a person.”

In addition, in both the Alabama and Michigan labs, meningitis has been elevated in laboratory infection control terms beyond the current CDC

recommendations for biosafety level 2. The labs now are dealing with the pathogen at biosafety level 3, which includes more stringent measures to prevent inhalation of aerosols.

“I don't think there is any way the CDC could have known that its guidelines were not strict enough,” Stanfield says. “But maybe the whole idea of specimen handling in laboratory settings needs to be re-looked at. Not only for this organism, but for other ones that also could be aerosolized.”

State lab workers in Michigan also are being offered the vaccine, Lasher notes.

“That is not something that is recommended by the CDC, but we went above and beyond that to offer it as well,” Lasher says. “As every other state laboratory in the nation, we were following the recommendations of the highest medical authority in the land, which is the CDC. We took these steps above and beyond that to err on the side of caution. We have had a great deal of support from the lab workers.”

### ***Why not immunize all?***

The lab deaths are expected to be reported in an upcoming issue of the CDC's *Morbidity and Mortality Weekly Report (MMWR)*. In preparing the report, the CDC is discussing infection control changes for labs, but the agency may not make any recommendation for routine vaccination of lab workers. Instead, the CDC is considering bumping up meningococcal lab work to biosafety level 3 conditions — meaning a biosafety cabinet would be used to prevent aerosol exposures when working in meningococcal specimens.

Current guidelines call for a class 2 biological safety cabinet to be used when mechanical manipulations that have high aerosol potential are performed.

“We're currently in discussion as to what specific recommendations we are going to make regarding laboratory handling of meningococcal isolates,” says **Jim Sejvar**, MD, medical epidemiologist in the CDC's meningitis and special pathogens branch. “You have to keep in mind, although this is obviously a worrisome thing — in fact, I suspect that it is more frequent than we are finding out — it is still a relatively rare occurrence.”

Based on figures that are likely an undercount, there have been 33 cases of laboratory-acquired meningitis since 1965, Sejvar found in reviewing the literature and appealing for case reports on

the Internet. About a third of those cases were fatal, he says.

“I went back about 15 years and, in addition to the ones that are already in the literature, [found] 17 additional cases,” he says.

“As far as I can ascertain, there are 16 cases in the literature. There are outlying cases in the early 1900s, but for the most part, those are [since] 1965. In general, these cases are not associated with mishaps. They’re just associated with circumstance — and probably not absolutely perfect laboratory technique. In none of these cases was there an obvious breach in protocol.”

Given that, why not err on the side of safety and recommend the vaccine for all lab workers who may work with the pathogen? From a public health perspective — despite the dramatic nature of the two recently confirmed cases — the CDC is reluctant to issue nationwide vaccination orders for meningitis of all clinical lab workers based on a real but rare risk.

### ***Suggestion vs. federal mandate***

“There is a difference between having a hospital suggest the vaccine to their laboratories and passing what would be, in effect, a federal mandate for that to occur,” Sejvar says.

“At this point, we don’t think that we can justify that particular recommendation across the board based on the relatively low risk. Ideally, what we are trying to do is to identify those particular laboratorians or those particular procedures that carry with them excess risk and recommend vaccination [in those cases]. I wholeheartedly support what Michigan and Alabama have decided, but it is much more difficult to do that at the federal level,” he says.

Regardless, any such recommendation would have to include input from the CDC’s Advisory Committee on Immunization Practices (ACIP), which may well take up the matter at its next meeting June 20-21, 2001, at the CDC, he says.

**William Schaffner**, MD, a liaison member for the American Hospital Association on the ACIP panel, recalls the discussions prior to issuance of the 1997 guidelines on the meningococcal vaccine. First, the meningococcal vaccine was not recommended on a more widespread basis to the public because it is not effective in children under the age of two, who are more likely to acquire the infection.

There also were questions about the booster schedule and concerns that the vaccine does not

cover serotype B meningitis, which historically has accounted for a large proportion of cases in the United States.

“So in that sense, it was an imperfect vaccine,” Schaffner says. “That doesn’t mean that it is not a good vaccine. It has been used on U.S. military recruits for 15 to 20 years, and it has been very effective in eliminating recruiting camp meningococcal outbreaks. There seems to be some increasing outbreaks on college campuses, and that’s why the vaccine is now recommended particularly for freshmen who are going to be living in dormitories.”

### ***Taking another look at the risks***

At the time of prior ACIP discussions, however, the committee decided there was not sufficient data on the risk to clinical laboratory workers to warrant a recommendation for universal vaccination, he recalls.

However, ACIP may well take up the issue again as the lab deaths raise questions and concerns, he says. “We now have these reports, which have raised the question that there may be others out there that we don’t know about,” says Schaffner, chairman of the department of preventive medicine at Vanderbilt University School of Medicine in Nashville, TN.

Word of the cases prompted concern among laboratorians at Vanderbilt, and the infection control committee offered voluntary immunization after a discussion, he says.

“We gave the vaccine to our laboratorians at their request,” he says.

“It is a safe and effective vaccine, but there are issues here that we need to acknowledge. For example, the appropriate booster schedule for the meningococcal vaccine, if there should be one, is a bit uncertain.” adds Schaffner. “So if you have, for example, a laboratory technologist who contemplates a 15- to 20-year career in the laboratory, then there has to be a program to make sure that those people are periodically boosted.”

Stanfield says her program is discussing boosting the lab workers every three to five years. Such details will no doubt be the subject of many infection control committee discussions after the CDC releases its official account of the cases and any new recommendations.

“Once that *MMWR* article is published, I think there will be discussions all over the country about the appropriateness of using the vaccine,” Schaffner says.

## Reference

1. Centers for Disease Control and Prevention. Control and prevention of meningococcal disease: Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 1997; 46:1-51. ■

# Was worker's respiratory condition a key factor?

## *Lab expert says sniffing can lead to inhalation*

The case of a fatal meningitis infection in a 35-year-old lab worker at Crestwood Medical Center in Huntsville, AL, began with the emergency department admission of a young girl on July 11, 2000.

Presenting with worsening cough and illness, the 12-year-old had a lumbar puncture performed to draw cerebral spinal fluid. The lab worker had not been at work the day that the patient was admitted, but worked with her specimens the next day and confirmed the presence of *Neisseria meningitidis*, says **Brian Whitley**, MPH, an epidemiologist with the Alabama Department of Public Health in Montgomery.

## *Unaware of the danger*

"It is possible he didn't know what it was immediately," he says. "That is a point of speculation. The blood cultures are apparently done in bottles, and it is possible or maybe even likely that he worked outside a containment hood with those bottles. He opened them up, took some of the blood out, and did a gram stain on that. Apparently that is common practice throughout the U.S., so he wasn't in any kind of violation of accepted practices. But everything else was apparently done under the hood."

A few days later on July 15, he developed general symptoms of headache, low-grade fever, and coughing. In addition, he had a pre-existing respiratory condition that caused his nose to run, Whitley explains. The laboratorian went to the hospital emergency department, where he was prescribed an antibiotic for his respiratory condition. Meningitis was not apparently suspected at that time, and he returned home.

During that night, his illness progressed to

include nausea, diarrhea, pain, and lethargy. He returned to the emergency department on Sunday morning at 7 a.m.

"His vital signs had declined significantly," Whitley says. "He had a temperature of 95.6 and lowered blood pressure." At this time, the connection was apparently made between his work as a laboratorian and his worsening illness. But little could be done as his symptoms progressed rapidly. "At 9:01 a.m., they began the resuscitation efforts, and the time of death was noted at 10:02 a.m. on Sunday the 16th," Whitley says. "Three hours from the time he returned to emergency department, he was deceased."

The 12-year-old source patient eventually recovered.

Did the worker's respiratory condition contribute to aerosol exposure? While the case is not likely to be solved in any definitive fashion, a Centers for Disease Control and Prevention (CDC) laboratory expert explains that such a condition could predispose someone to inhale infectious particles. **Harvey Holmes**, PhD, ran a hospital clinical lab for years before becoming chief of the diagnostic microbiology section at the CDC.

"Essentially, the only restriction I had on the bench for individuals working with meningococcus was whether they had [a runny nose]," he says. "If they had an upper respiratory infection and had a runny nose, they were not permitted to work on a *Neisseria meningitidis* culture. The inference was that either they would wipe their nose or they may have just been sniffing, and that in and of itself [could lead to aerosol inhalation]."

The CDC is considering revising its infection control guidelines for laboratories in light of the case, particularly with regard to containing aerosols. "There are many ways one can cause aerosols in the laboratory," Holmes says. "Even just doing a gram stain and then sticking the 'loop' [lab instrument] in a flame to disinfect it can create an aerosol."

## *CDC may go to level 3*

The CDC is considering recommending use of a biosafety level 3 safety cabinet for clinical laboratories working with meningococcal specimens. Current guidelines call for biosafety 2 conditions, including use of gloves and laboratory coats and decontamination of all infectious wastes. The use of masks and face shields is less clearly defined and apparently not common practice.

“The current guidelines read so that they are very open to interpretation,” says **Jim Sejvar**, MD, medical epidemiologist in the CDC’s meningitis and special pathogens branch. “Face masks and face shields are suggested ‘when there is a significant risk of aerosolization.’ One of the things that we have endeavored to do is find out what those situations are.”

For example, common laboratory diagnostic procedures such as subplating and “streaking” to inoculate culture medium in agar plates can create aerosols, he says.

“We suspect that does represent increased risk,” he says. “Streaking can certainly lead to aerosolization, and if that is not done under a biosafety hood, that could certainly lead to increased risk.”

As a result of the case, the Crestwood Medical Center brought in a laboratory consultant and implemented many changes that go beyond current CDC guidelines.

“One key thing is that if you come to work and you have symptoms of cold and sniffing, then you wear a mask — all day if necessary — whenever you are working over specimens,” says **Suzanne Stanfield**, RN, MSN, CIC, infection control coordinator at Crestwood.

In addition to immunizing workers with the meningococcal vaccine, hospital officials also decided that all procedures involving spinal fluid must be done under a laboratory hood. They also looked at traffic patterns, airflow, and the effects of opening and closing doors on laboratory hoods and safety cabinets.

“We tried to look at everything,” she says. “We went to plastic covers on the computer key pads so they can be washed.” ■

## For the best EH software, take control of the choice

*You can quantify differences in software*

**D**o you have someone who reminds you which employees are due for TB screens or immunization updates, tracks needlesticks and highlights patterns in employee injuries, helps manage your daily workflow of patients, and calculates costs and provides analysis?

You should. Those are all tasks that can be

handled by a well-designed computer program.

Unfortunately, many occupational health professionals are working with software that wasn’t selected to meet their needs or isn’t being used to its potential.

**James K. Ross**, MD, MBA, an occupational health physician and an expert in information systems for occupational health clinics, shared some basic advice for those in the market for software.

“Selecting an information system is a strategic planning effort,” says Ross, who is chairman of the informatics section of the American College of Occupational and Environmental Medicine and president of the American Institute of Medical Management, a consulting firm based in Ashland, KY. “It’s not just purchasing something and hoping it will match up at the end.”

Ross outlined steps occupational health professionals should take in evaluating information systems:

**1. Make sure you are a part of the selection process for new information systems.** That may seem obvious, but too often employee health professionals allow information technology (IT) experts to select software. The problem with that hands-off approach is that those IT experts don’t know what your needs in occupational health are.

You may end up with a system that performs well for what it does but doesn’t do what you want. “You need to manage IT instead of IT managing you,” says Ross.

**2. Determine your major work processes, then look for systems that would improve your productivity in that work.** It takes time to define each task you do in employee health, but that will be time well-spent. You want to set priorities for your needs and select a system that will help you manage the most important aspects of your work.

Ask questions that might relate to common scenarios. How would you register a patient in the system when he or she reports with an ankle injury? What would you do if the employee goes to the emergency department after hours instead of to the employee health clinic?

Meanwhile, be sure the system can interface with other systems, such as the lab and human resources.

“Where most people go wrong is they read the vendors list of what it says it will do, and they accept the vendor’s presentation. Then they get it in their clinic and say, ‘This isn’t what I thought it

did,” says Ross. Once you know what your greatest needs are, you can ask vendors how their systems meet those needs.

**3. Use a quantifiable method to evaluate systems.** Ross has developed a list of items, such as design and technical features and operational functions, that form an evaluation method he calls Effectively Quantifying Quality in Information Systems (EQQIIS). But your list doesn't need to be that detailed.

Your IT staff can help you list important technical features and you can identify work-flow needs, such as scheduling preplacement exams or analyzing needlesticks. Then each member of the selection team assigns a point value on a scale of 1 to 100 for how important each characteristic is and grades each possible software product in the same way. This method identifies the product that attains the highest score on the elements that are listed as most important.

## NEEDLE SAFETY

What you must know *before* OSHA inspectors come calling

*A teleconference for managers and frontline workers*  
**Wednesday, August 29, 2001 at 2:30 p.m. EST**

*Presented by OSHA experts*

Cynthia Fine, RN, MSN and Katherine West, BSN, MSED, CIC

**JUST \$199 FOR YOUR ENTIRE FACILITY!**

**A** new federal law threatens hospitals and outpatient surgery centers with citations and fines unless needle safety devices such as retractable or self-sheathing needles are being regularly evaluated. Further, **this law mandates that frontline health care workers be involved in the evaluation and selection of needle safety devices.**

**T**he new national regulations are closely modeled on earlier passage of a state OSHA law in California. Lessons learned from actual Cal-OSHA inspections in California will be revealed including how OSHA has been enforcing the regulations there and what to expect during an inspection. Additionally, you will learn what recent changes on the national level mean for your hospital. Our experts will bring the right combination of recent real-world experience and time-honored OSHA compliance tips to make this program a must to meet the new national mandate for needle safety.

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**4. Be realistic in your expectations of information systems.** When you finish your scoring, don't expect any of your choices to end up with an "A" or even a "B." You'll be lucky to find a system that even merits a "C," Ross says. "We haven't found off-the-shelf programs that meet anybody's needs." You might use your in-house IT expertise to customize the system, or you might ask the vendor to add customized features. You may decide that the system responds to your more important needs, despite certain failings.

**5. Provide adequate training.** Again, this may seem obvious, but lack of sufficient training is a major reason for underuse of information systems. Hopefully, in your selection process, you identified user-friendly attributes as essential.

You also should arrange for ongoing technical support, including updates to reflect major new

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Editor: **Steve Lewis**.

Vice President/Group Publisher: **Brenda Mooney**, (404) 262-5403, (brenda.mooney@ahcpub.com).

Editorial Group Head: **Leslie Coplin**, (404) 262-5534, (leslie.coplin@ahcpub.com).

Managing Editor: **Kevin New**, (404) 262-5467, (kevin.new@ahcpub.com).

Senior Production Editor: **Ann Duncan**.

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### Editorial Questions

For questions or comments, call **Kevin New** at (404) 262-5467.

regulatory developments (such as the Occupational Safety and Health Administration's ergonomics standard).

"It isn't a typewriter with a screen, it really is a computer," remarks Ross. "Most of the time, we're using it as a typewriter with a screen instead of something with embedded knowledge."

*[Editor's note: More information on selecting occupational health information systems is available in the Guidebook to Occupational Health Informatics, (\$75 ACOEM members, \$90 nonmembers) from the American College of Occupational & Environmental Medicine, 1114 N. Arlington Heights Road, Arlington Heights, IL 60004-4770. Telephone: (847) 818-1800. Fax: (847) 818-9266.*

*The American Institute of Medical Management provides informatics consulting and can be reached at (606) 329-3906 or [www.mbadocs.com](http://www.mbadocs.com).] ■*

## NEWS BRIEFS

### U.S. Supreme Court to consider ADA case

*Is work-related injury a disability?*

In a case with broad implications, the U.S. Supreme Court has agreed to hear a case that would define "disability" as it relates to the American Disabilities Act. The case raises the question: When does an injury become a disability that requires accommodations?

In *Toyota Motor Manufacturing, Kentucky v. Williams*, Ella Williams developed carpal tunnel syndrome from using vibrating pneumatic tools. She transferred to a quality control job that involved visual inspection.

When that job was changed to include sponging and wiping the cars, activities that caused her pain, she sued.

Toyota maintains that her impairment didn't meet the definition of disability in the ADA, which describes "a physical or mental impairment that substantially limits one or more of the major life activities . . . functions such as caring

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for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning and working." ▼

### WA senate seeks delay on ergonomics rule

*Hospitals must identify hazards by 2003*

The Washington state senate voted to delay a new ergonomics rule until 2005. The rule, adopted in May 2000 by the state Department of Labor and Industries, phases in ergonomics requirements. Hospitals fall in the second tier of hazardous industries, which means they must begin identifying hazards and educating employees by July 2003, and must be in full compliance by July 2004.

The Washington rule focuses on prevention by requiring employers to identify and fix potential hazards. In contrast, the OSHA rule that was recently rescinded by Congress was triggered by musculoskeletal injuries.

Washington business organizations have argued that the state rule is too expensive, too vague, and not medically based. Democratic Gov. Gary Locke has expressed opposition to the delay in enforcement and could veto the bill if it passes the state House. ■

# American Health Consultants Education and Training Fax-back Survey

We would like to learn more about training and education needs for you and your staff. Please circle the number corresponding to your level of interest in the following topics:

		No Interest	2	Some Interest	3	4	Much Interest	5			No Interest	2	Some Interest	3	4	Much Interest	5
HIPAA privacy rules	1	2	3	4	5				Palliative care	1	2	3	4	5			
Stark II	1	2	3	4	5				End-of-life care	1	2	3	4	5			
EMTALA	1	2	3	4	5				Assisted suicide	1	2	3	4	5			
Aftermath of ergonomics	1	2	3	4	5				Genetic testing	1	2	3	4	5			
OSHA compliance	1	2	3	4	5				Organizational ethics	1	2	3	4	5			
Post-exposure prophylaxis	1	2	3	4	5				Human research protection	1	2	3	4	5			
Influenza update	1	2	3	4	5				Informed consent documentation	1	2	3	4	5			
Antibiotic resistance	1	2	3	4	5				New accreditation standards	1	2	3	4	5			
Adverse drug reactions	1	2	3	4	5				Observation units (23-hour care or recovery beds)	1	2	3	4	5			
Drug interactions	1	2	3	4	5				ED diversion	1	2	3	4	5			
Medication errors	1	2	3	4	5				Avoiding lawsuits: What to say when something goes wrong	1	2	3	4	5			
Herb-drug interactions	1	2	3	4	5				Improving documentation for nurses and physicians	1	2	3	4	5			
Nosocomial infections	1	2	3	4	5				Nursing shortage	1	2	3	4	5			
Patient falls	1	2	3	4	5				Bioterrorism	1	2	3	4	5			
Basic information for frontline workers	1	2	3	4	5				Disaster planning and mass casualties	1	2	3	4	5			
Needlesticks	1	2	3	4	5				Safety and security	1	2	3	4	5			
Latex sensitivity	1	2	3	4	5												
TB compliance	1	2	3	4	5												
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Pain management	1	2	3	4	5												

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Travel off-site to live conferences	1	2	3	4	5		
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Outside-sponsored teleconferences	1	2	3	4	5		
Outside-sponsored videoconferences	1	2	3	4	5		
Web-based conferences	1	2	3	4	5		
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Other _____	1	2	3	4	5		

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