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Routine HCV testing considered for high-risk health care workers

EH consultant cites both medical and liability issues for screening

In what is emerging as a controversial debate for hospital occupational health programs, some employee health professionals are implementing routine testing programs for hepatitis C virus (HCV) to record baseline serostatus of at-risk health care workers. Citing both medical and hospital liability issues, an employee health consultant for a California health care chain of 48 hospitals is recommending that the facilities consider voluntary HCV screening programs, *Hospital Employee Health* has learned.

“What I am going to recommend is that they focus on the health care workers that actually take care of the high [HCV] -prevalence patients — for example, the trauma, dialysis, or liver transplant patients,” says **Cynthia Fine**, RN, MSN, CIC, employee health and infection control program consultant for Catholic Healthcare West in Oakland, CA. “[The policy] wouldn’t include health care workers who don’t have blood exposures. So it would be the nurses and the phlebotomists — the people that really do have blood exposure — and certainly it would not be a mandatory test.”

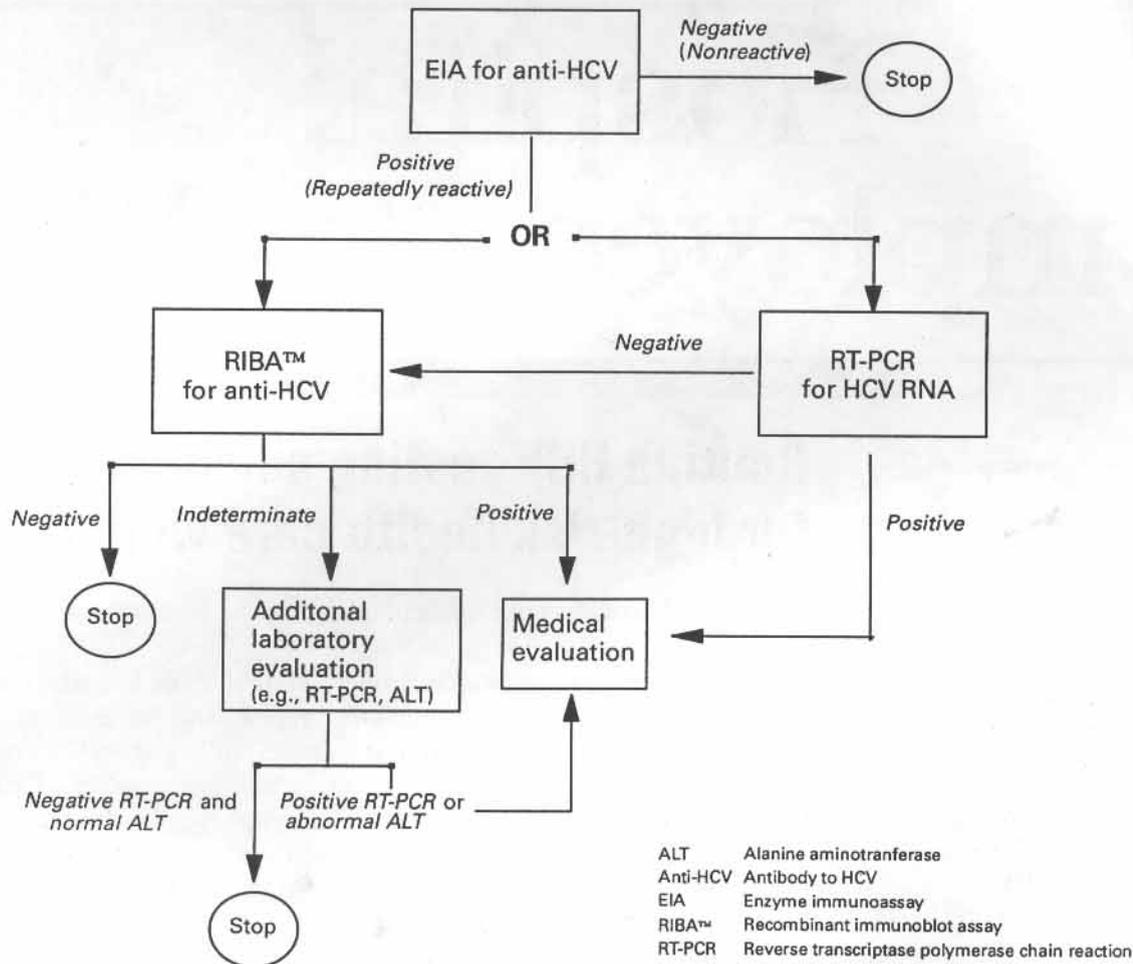
As currently planned for those hospitals that decide to enact the policy, HCV testing will be offered on initial hire and to existing employees who want to know their serostatus, she says. As part of the program, the workers will be educated about risk factors so they can make an informed decision about whether they want to be tested, she says. Currently, the Centers for Disease Control and Prevention in Atlanta does not recommend routine testing of health care workers for HCV “unless they have risk factors for infection.”¹ (See **guidelines, p. 136.**)

Fine argues that the policy is within the spirit of that recommendation, because only workers whose jobs may involve blood exposures will be offered voluntary testing. Also, all existing protocols for testing source patients and following workers after exposures will remain in place, she notes. The CDC has not recommended routine testing for all

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Hepatitis C virus (HCV)-infection-testing algorithm for asymptomatic persons



Source: Centers for Disease Control and Prevention, Atlanta.

health care workers, in part because data show that only 1.4% of those reporting a history of health care employment are HCV-positive.²

“Because the [HCV] prevalence among health care workers is very low, we do not recommend routine screening of health care workers to identify individuals with infection,” says **Miriam Alter**, PhD, chief of epidemiology in the CDC hepatitis branch. “Health care workers who are exposed to blood in the workplace are at occupational risk of acquiring HCV, primarily as a result of needlestick exposures to blood contaminated with HCV. That is different from the fact that health care workers in general have a low prevalence of HCV infections. We recommend that health care workers with an exposure be followed for infection, rather than recommending that health care workers as a group be screened.” (See related story on HCWs’ blood-borne exposures, p. 137.)

The HCV testing policy will be optional for Catholic West hospitals, but those that treat a lot of trauma patients or do liver transplants may consider it more seriously due to heightened risk of exposures or greater prevalence of the virus in the patient population, Fine says. A highly mutable virus for which there is no vaccine, HCV is the leading cause of chronic liver disease in the United States. Overall, some 4 million Americans have HCV antibodies and 2.7 million of those people are chronically infected with the virus.

The risk factors most strongly associated with HCV among people ages 17 to 59 are illegal drug use and high-risk sexual behavior, according to the CDC study by Alter and co-authors. The study also indicates that blood transfusions may have been the source of infection in about 7% of cases.

To avoid false positives and other testing problems, employee health professionals who implement screening programs should follow the CDC testing algorithm for HCV, Alter adds. (See chart, p. 134.) “Obviously, if they are going to do any kind of screening of health care workers, they have to confirm the result,” she says. Though the CDC recommends against routine testing, such public health guidelines are not designed to address peripheral issues like worker’s compensation disputes, Alter concedes.

Disputed infections a reality

But the reality that employee health directors face is that workers who have acquired HCV in the community may claim the infection is occupational, and the courts may rule in their favor because blood exposures to HCV patients do carry known risks. “Even if they don’t have a needlestick in the past — or some [exposure] that’s documented — it usually is going to come out that the health care worker gets the benefit of the doubt and is covered for the infection,” Fine says.

HCV testing at time of employment could redirect liability claims back to the previous health care employer, she notes, adding that the long-term medical expenses associated with chronic infection can be exorbitant. “You can end up with hepatocellular carcinoma or liver transplants,” she says. “While we certainly want to be responsible for the infections that are a result of our employment, we don’t want to have to pay for the ones that aren’t.”

In addition, there is a public health aspect, because people can be unaware of their HCV infection for years, unknowingly aggravating the course of the disease by consuming alcohol instead of making lifestyle adjustments, she adds. Indeed, the old mindset that virtually nothing can be done for HCV infection is changing, as more promising therapies with drugs like interferon come into play, says **David Van Thiel**, MD, director of the liver transplant program at Loyola University Medical Center in Chicago.

“[HCV] is just one of the most important problems we have in the nation, let alone for health care workers, but there’s a lot of misinformation,” he says. “The disease is treatable, it is manageable, but most of the people who have it don’t know they have it. The symptoms are pitifully few other than fatigue and malaise. People don’t go to the hospital or go to the doctor because they

are tired or have malaise. So people have to become more aware of those kinds of complaints and at least be assessed for hepatitis C.”

However, Van Thiel sees both pros and cons to routine HCV testing of health care workers. “Some hospitals are clearly doing it,” he says. “It’s an intelligent decision on their part in terms of liability, because if someone comes down with hepatitis C, it’s impossible for the hospital to prove that the individual didn’t acquire it as a consequence of their employment. So from a liability point of view, it’s clearly the way to go. The real concern is that they will use it to ‘blackball’ people or not to hire people. Those are concerns that I think are real. It’s actually against the law not to hire them because of a hepatitis C positive result [i.e., under the Americans with Disabilities Act].”

In that regard, Fine says her policy includes assurances that the test result will not have any effect on employment. “[HCV-positive people] could still work as usual using the normal, standard precautions when caring for patients, so it wouldn’t limit their employment,” she says. “Again, [testing] would have to be something that was their option whether to do or not.”

Testing source patients a better alternative?

Still, even those workers screened initially negative still could acquire HCV in the community, complicating such testing approaches and raising questions about resource allocation for employee health departments, says **Robert Ball**, MD, MPH, infectious disease consultant epidemiologist at the South Carolina Department of Health in Columbia.

“Considering that most hepatitis C is not occupationally acquired but ‘extracurricularly’ acquired through needle-sharing and sex, hospitals would have to screen their employees not only at entry but frequently each year,” he says. “Even then, what do you do with a positive unless you’ve had a bona fide exposure?”

Indeed, workers who are baseline negative but later test positive may claim they had a needlestick or other exposure they did not report, he notes. “That has actually happened, so the most efficient way to manage those situations is not to test employees regularly and waste precious limited resources, but to require them to report any and all exposures immediately,” he says. “Once an exposure incident is reported, immediately test the source patient.

CDC guidelines call for HCV postexposure testing

No restrictions for HCV-positive workers

While routine screening is not recommended, employee health professionals should have protocols in place to test source patients and exposed workers for hepatitis C virus infection following needlesticks or other exposures, the Centers for Disease Control and Prevention recommends.¹

“Individual institutions should establish policies and procedures for HCV testing of persons after percutaneous or permucosal exposures to blood and ensure that all personnel are familiar with these policies and procedures,” the CDC guidelines on HCV recommend. Other key points of the most current CDC guidelines for HCV include:

- Health care workers who care for people exposed to HCV in the occupational setting should be knowledgeable regarding the risk for HCV infection and appropriate counseling, testing, and medical follow-up.
- Immune globulin and antiviral agents are not recommended for postexposure prophylaxis of HCV. Limited data indicate that antiviral therapy might be beneficial when started early in the course of HCV infection, but no guidelines exist for administration of therapy during the acute phase of infection. When HCV infection is identified early, the individual should be referred for medical management to a specialist knowledgeable in this area.
- Health care workers should be educated regarding risk for and prevention of bloodborne

infections. Standard barrier precautions and engineering controls should be implemented to prevent exposure to blood. Protocols should be in place for reporting and follow-up of percutaneous or permucosal exposures to blood or body fluids that contain blood.

- Currently, the CDC does not recommend restricting the professional activities of health care workers with HCV infection. As recommended for all health care workers, those who are HCV-positive should follow strict aseptic technique and standard precautions, including appropriate use of hand washing, protective barriers, and care in the use and disposal of needles and other sharp instruments.

The risk for HCV transmission from an infected health care worker to patients appears to be very low, though there has been at least one report of transmission during performance of exposure-prone invasive procedures.² That report, from Spain, described HCV transmission from a cardiothoracic surgeon to five patients, but did not identify factors that might have contributed to transmission. Although factors (e.g., virus titer) might be related to transmission of HCV, no methods currently exist that can reliably determine infectivity, nor do data exist to determine threshold concentration of virus required for transmission, the CDC concludes.

References

1. Centers for Disease Control and Prevention. Recommendations for prevention and control of hepatitis C virus (HCV) infection and HCV-related chronic disease. *MMWR* 1998; 47 (No. RR-19):1-39.
2. Esteban I, Gomez J, Martell M, et al. Transmission of hepatitis C virus by a cardiac surgeon. *N Engl J Med* 1996; 334:555-60. ■

In a small percent [of cases] they may not know who the source patient is, but most source patients will be negative. So even if that worker has a negative baseline and positive hep C testing three to six months later, they still didn't get it from that source patient.”

Worker's comp providers are taking a more aggressive stand in contesting infection claims based on undocumented occupational exposures, so workers need to be told in no uncertain terms, “If you don't report it at the time, it basically didn't occur,” Ball emphasizes.

“Worker's comp [providers], with an economic bottom line as their target and the goal of protecting their investment, are going to be looking at these and requiring documentation more and more critically,” he says. “They're basically going to be saying, ‘We're not going to pay that worker \$100,000 to \$200,000 or whatever it takes to cover that incident, unless your employee health people can really document that the employee got it occupationally.’”

Still, it's important to remember that workers exposed to blood in the hospital are clearly at

risk, because HCV prevalence in hospitalized patients is generally much higher than in the population at large. Though prevalence will obviously vary by locale, CDC surveillance data indicate that a 1.8% prevalence of HCV in the general population jumps to more than 8% when you look solely at hospital patients, Ball reminds.

But even then, few health care workers will need baseline and follow-up HCV testing, because roughly only one in 10 source patients will be positive for HCV, he adds. So instead of routine screening, Ball advocates that employee health professionals re-emphasize reporting exposures, meticulously document the incidents, and rapidly test source patients in order to determine whether to follow the exposed worker.

“There is still an unfortunate, tragic mindset that since there is no postexposure prophylaxis [for HCV], then nothing should be done, and that is the furthestmost thing from the truth,” he says. “The health care worker’s future medical prognosis and care, as well as worker’s compensation benefits, [call for] a well thought-out, organized management plan.”

Reference

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2. Alter MJ, Kruszon-Moran D, Nainan OV, et al. The prevalence of hepatitis C virus infection in the United States, 1988 through 1994. *N Engl J Med* 1999; 341:556-562. ■

HCWs suffer stress long after bloodborne exposures

Needlesticks make up majority of exposures

Health care workers who may have been exposed to bloodborne pathogens may experience high levels of stress up to a year after the exposure incident, even when they did not become infected with HIV or hepatitis C, researchers say.

In a study conducted at the Johns Hopkins School of Public Health in Baltimore and the Department of Infection Control at Holy Cross

Hospital in Silver Spring, MD, investigators used a five-page, confidential, self-administered questionnaire to evaluate the circumstances surrounding possible exposures and the reactions of the exposed health care workers, according to lead author **Robyn Gershon**, MHS, DrPH, a scientist at the Johns Hopkins School of Hygiene and Public Health. Out of the 186 employees who experienced a possible exposure, 65 returned completed surveys. (The study is currently under consideration for publication by a peer-reviewed medical journal.)

Needlesticks are the most frequent cause

Fifty-six percent of those surveyed reported that their exposures came from needles. Cuts accounted for 22%, splashes to eyes or mouth 21%, and exposures to open wounds were listed as the cause in 10% of incidents. Nearly 40% of respondents reported at least one other previous exposure. Many exposures occurred in the operating room, and many were caused by actions of co-workers, such as the improper disposal of sharps or needles. The researchers noted three exposure incidents that resulted after health care workers disposed of contaminated needles in an overfilled sharps container. One respondent was stuck after trying to dispose of three liver biopsy needles at once.

“Other unsafe acts also related to disposal were not infrequent and often dramatic,” the study authors wrote. For instance, while attempting to remove a dirty knife blade improperly, an OR technician accidentally launched the blade into the arm of another nurse. The nurse who was cut wrote that “the blade was like a dart and my arm was like a dart board.”

One nurse reported being stabbed in the buttocks by bloody surgical scissors. Patients who “jerked, were combative, tried to bite, scratched or spit on HCWs resulted in several HCW exposures,” according to the researchers. A few of the employees who were exposed as a result of patient behavior still blamed themselves for the incident.

Exposed HCWs frequently reported unsafe practices such as recapping, uncapping, and unscrewing needles from vacutainer holders, and using a Kelly clamp to unscrew vacutainer needles — practices in conflict with hospital policy. Splashes and sprays to the eyes frequently occurred when HCWs did not wear a face shield or goggles.

Sixty percent of HCWs went to the clinic immediately after their exposures, and 29% visited the clinic within the recommended two hours. Almost 11% waited more than a day, mostly because they said they didn't have time to go.

"We were especially interested in determining how long health care workers had to wait before they received treatment," Gershon says. She found that 64% were seen within 15 minutes after they arrived at the clinic. Only 4% had to wait more than two hours. Some health care workers reported problems when they called the exposure hotline after hours, because the operator did not know whom to contact.

Postexposure prophylaxis (PEP) was recommended for 27% of respondents, though several had misconceptions about their risk and need for PEP. For example, one HCW assumed she did not need PEP because the source of the exposure had been a patient who had tested negative for HIV three months earlier. Some of the subjects whose exposures warranted post-exposure prophylaxis received no follow-up medications.

Some said making the decision of whether to receive PEP was difficult and that the educational material from the clinic was "overwhelming." Some HCWs refused to start PEP because they feared the side effects. Subjects who received PEP reported numerous PEP drug-related symptoms, including nausea, stomach ache, fatigue, headache, and diarrhea.

Treatment and follow-up care

For the most part, respondents were satisfied with follow-up care, but virtually all would have welcomed reminders of when to return for PEP vaccines and follow-up testing and being informed more quickly about test results of the source of the exposure.

Some respondents said follow-up care could be improved by incorporating postexposure testing at 12, 18, and even 24 months after the incident. Respondents also indicated they would welcome an opportunity to talk to managers and co-workers about exposure incidents so similar events could be avoided. Others said they wanted more and better training regarding the prevention of bloodborne pathogen exposures. In general, exposed HCWs said they wanted their co-workers to be more careful and alert in situations when the risk of an exposure

is high and to adhere closely to hospital safety policies and procedures.

More than half of the study subjects reported anxiety after their exposures, 18% reported insomnia, 13% said they became depressed, 10% reported loss of appetite, and 10% reported frequent crying.

Some employees said that they felt angry and upset as long as a year after the incident, even when they learned that the source of the exposure tested negative for hepatitis C and HIV, according to Gershon. Some were angry with co-workers for their carelessness. Others started thinking about a career change, while some just resigned themselves to the risks inherent in their profession. One resident wrote that it was unfair to be expected to perform difficult needlesticks without having been adequately trained.

Exposed HCWs reported relationship problems

Effects on family and other relationships were significant in some cases. Some were afraid to tell family members about the exposure because of shame or fearing a lack of support. Most exposed HCWs either abstained from sex or practiced safe sex while they waited for test results. One nurse wrote, "I was afraid to have sex with my spouse. He did not understand. We are separated now." Others reported similar sex-related difficulties with partners.

Based on the study results, Gershon and her colleagues offered several recommendations for the management of exposed HCWs. They include the following:

- Department managers should be required to respond to and review each exposure incident. At least aggregate exposure data for an institution should be carefully reviewed by the appropriate committee.
- Employee health departments should survey all exposed HCWs after their treatment protocols have ended.
- Employee health program managers should periodically review the postexposure program and PEP protocols to adjust for any public health recommendations and recommendations from exposed staff members.
- A simple PEP program description and PEP instructions should be given to all new employees at orientation.
- Counseling should be made available to both the HCWs and to their spouses or partners and families. ■

Change model helps create latex-safe environment

Task force formed to implement changes

When the incidence of allergic reactions to latex gloves among patients and staff began to increase at Milton (MA) Hospital, a non-teaching facility with about 900 employees, the employee health nurse and the medical director quickly instituted a plan to create a latex-safe environment. They began by assembling a latex task force and implementing a strategic change model.

“The medical director and the employee health nurse took people from different areas,” says Susan Manual, MS, BSN, RN, assistant vice president of patient care services at Milton. The core representatives included the employee health nurse herself, the nurse manager, a staff nurse from the emergency department, the nurse manager of the post-anesthesia care unit, a staff nurse from the operating room, the director of materials management, the assistant vice president of patient care services, and the staff educator, Manual recalls. “They collected information on how other facilities addressed the same problem and found out what products they were using. Then they delegated the workload. Some task force members dealt with patient care, and others dealt with employee health policies,” she continues.

Manual notes that the medical director brought an urgency to his task based on an episode that had occurred the previous year when he worked at a Midwestern hospital: A physician and a nurse had experienced “full blown” anaphylaxis after working with latex.

Of the several change models considered, the task force opted to emulate a 10-stage organizational development change model first described in 1983.¹ Manual writes that “this approach to the change process is based on systematically collecting information and implementing the change based on that information.”²

Manual summarizes the 10 stages of the change model applied at Milton Hospital as follows:

1. Initiation. Obtain preliminary information about a need for change. The medical director outlined the scope of the problem and his plans for change. The interdisciplinary task force, chaired by the medical director, was established

early in 1995. Top administrators at the hospital assured him they would fully support all efforts to make the hospital latex-safe.

2. Clarification. Answer additional questions about the need for change. At this stage, Manual and the medical director outlined the committee’s preliminary and subsequent goals. The initial goals, according to Manual, were to develop policies for the management of latex-sensitive patients and staff, and to determine plans and programs to educate physicians and the health care staff about latex sensitivity.

3. Specification/agreement. Agree on the need, preliminary objectives, and resources. At this stage, the medical director educated the task force about the effects of latex allergy on patients and staff. “The diversity of the task force enabled the members to address the many issues in the care of those impacted by latex sensitivity,” Manual says, “such as administering medication, performing procedures, and monitoring vital signs in caring for latex-sensitive individuals.” The specific duties of the task force were allocated.

4. Diagnosis. Evaluate where the organization is at the present time. The task force gathered large amounts of information on latex sensitivity and its ramifications, as well as documentation about how other facilities had addressed the problem. Research turned up several prior seminal events related to latex use at Milton Hospital: One patient had experienced anaphylactic shock during a colonoscopy, and a nurse had suffered two asthmatic episodes requiring emergency treatment. Manual says “the committee members were astonished at the information previously unknown to them.” This lack of knowledge highlighted the lack of knowledge about latex-related allergies among the staff.

5. Goal setting/action planning. Determine what will be done, by whom, and when. The task force set its initial goals.

6. System intervention. Implementation of the change plan is initiated. The task force was expanded to include the director of pharmacy and an anesthesiologist. Staff worked to develop latex-safe patient care carts. The project ran into its first significant opposition during this phase, according to Manual. “Changing from latex gloves to synthetic alternatives had the greatest impact on the development of the latex-safe environment. It also had the greatest repercussions. Although resistance was expected, the intensity of the resistance was not. The reaction

of individual staff was directly related to the level of knowledge about latex sensitivity.”

Manual told *Hospital Employee Health* that identifying “key resisters” in a given hospital department and working to persuade them to join the cause became an effective strategy. Among those most resistant to the move away from latex gloves was the laboratory manager, because the new synthetic gloves offered decreased tactile sensitivity and made routine laboratory tasks more difficult. During this phase, Manual says the task force printed draft policies for the care of latex-sensitive patients and distributed them to the staff for feedback and ultimately hospitalwide approval.

Also during this phase, the staff educator produced a latex allergy education plan to educate nurses and allied health professionals, a review of latex policies for new employee orientation, and a mandatory annual review of latex policies, which included a short exam.

7. Evaluation. Assessing the progress of the plan. Manual strongly emphasizes the need for continuous education on the topic of latex allergy to sustain “buy in” from physicians and other health professionals on staff.

8. Alteration. Modify the change plan as necessary.

9. Continuation/maintenance. Monitor and maintain the plan. Constant monitoring of the plan is essential for its success, notes Manual. “You can’t consider the job done once you have policy in place,” she says. “You have to conduct regular updates. You have to consider staff turnover and monitoring the care of patients who come in with latex allergies. You also have the huge task of updating the policy as new equipment comes in. You need a built-in monitoring system.” This, she adds, is perhaps the most challenging step of all.

10. Termination. Change is entrenched in the institution; the change agent is no longer needed. At this point, the task force was dissolved, having met its goals.

“We certainly haven’t gone to a totally latex-free environment, but we have made some changes and put in a standard of care for how to deal with a patient who comes through the door with a latex allergy,” Manual explains.

Most of the reduction in latex use has taken place with exam gloves. The operating room was included in the process, but so far has not changed the type of sterile gloves it has been using. “We concentrated on the exam gloves that people use

in the day-to-day care of patients,” says Manual, adding the task force felt that any decisions regarding gloves used in the OR should be made independently by the OR committee.

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Program follows holistic path to employee health

Approach emphasizes psychological well-being

An Iowa hospital system has adopted a holistic approach to employee health that integrates spiritual and physical health and encourages individuals to realize their potential for growth, health, and enjoying life.

The program, called Kailo (an Indo-European word meaning to be whole or healthy), applies a somewhat offbeat approach toward fostering the well-being of the staff at Mercy Medical Center - North Iowa in Mason City. Mercy Medical Center is a nonprofit hospital system employing about 2,700 people at more than 60 facilities in 16 counties across northern Iowa. The organization is the largest employer in Cerro Gordo County and the largest employer of women in northern Iowa.

But where did Kailo come from? Nobody at the organization had ever heard of the word “Kailo” when the hospital’s director of women’s services launched a research project early in 1996 to find out how employees perceived their emotional and physical health.

The results, based on the responses of 253 female employees who completed an augmented version of the standardized Adult Health Risk Survey, revealed some interesting findings about Mercy’s staff, as well as some troubling ones:

- Nearly 90% of employees were female.
- Twenty-five percent of age-appropriate women had never received a mammogram.
- Forty-four percent of female employees met the definition of clinical obesity.
- Seventy percent did not exercise regularly.

- Fifty-seven percent reported high or very high stress in their lives during the past six months.
- Half reported at least one episode of depression in the previous six months.
- Nearly four in 10 women said their body shape and size interfered with what they wanted to accomplish in life.
- One in five reported being the victim of verbal or physical abuse in their homes (which is actually lower than the national average).

In focus groups, female employees said they were more concerned about psychosocial and spiritual health concerns than they were about nutrition and fitness. "Women were talking about parenting, getting along with coworkers, fatigue, sleeping problems, depression, and stress," says **Kelly Putnam**, MA, Mercy's health promotion coordinator. Employees wanted to feel valued for who they were, not just what they did at work, and they wanted more fun and playfulness on the job, she added. Employees also said a lack of time and supervisors often kept them from participating in a wellness program.

Clearly, a health promotion model centered on reducing risk factors for disease would do little to address the concerns of Mercy's staff. They needed something different.

In the summer of 1997, Putnam attended a holistic health seminar presented in Stevens Point, WI, by **Jonathan Robison**, PhD, MS, executive co-director of the Michigan Center for Preventive Medicine in Lansing. Robison discussed holistic health models, which appeared to be just what Mercy was looking for. Putnam also picked up on the word "Kailo," which seemed like a perfect name for a health program.

Traditional health-promotion programs in this country are based mainly upon a biomedical, mechanistic principle, Robison explained. They stress causal links between behavior, disease risk, and premature death, and preach abrupt alterations in behavior in order to avoid ill health (lose weight, reduce blood pressure, eat less fat, exercise more, etc.). The messages, says Robison, are almost always negative, rarely life-affirming, and are based on the assumption that people naturally gravitate toward unhealthy habits.

Holistic health models give equal weight to psychological well-being and physical health, yet do not discount the importance of healthy behaviors. They do, however, reject the view that the human body is a complex machine that operates smoothly

(or breaks down) in response to "mechanical" maintenance.

Instead of trying to dictate behavior, holistic programs take aim at the universal factors that underlie and influence behavior, such as relationships, self-image, social support networks, meaningful work, emotions, optimism, playfulness, creating an understanding of life's important issues, and fostering awareness of a person's value, strengths, and potential. Their messages are positive, not negative, says Robison.

"People are tired of messages that tell them that they're going to die because they're not doing the right thing," Robison continues. "The focus on negative messages has become a barrier to participation in health programs.

"To make a health program work, you have to bring down those barriers. You want people to say, 'why wouldn't I join this,'" he says. One way to attract more people to health programs is to eliminate stressful elements such as fitness tests and minimize the commanding tone that usually does little to modify behavior, Robison says.

Take a Kailo break

Guided by Mercy's survey results, Putnam and her colleagues combined what they learned at Robison's seminar with information from the Stone Center at Wellesley College in Wellesley, MA, whose research shows that women experience their life and health through their relationships. The result was the Kailo program, which kicked off in January 1998.

The first element of the new wellness program was the Kailo break. Each of these hour-long programs focuses on a different aspect of health. At first, topics were kept light and entertaining. The speaker at the first Kailo break recounted the adventures of his seven cross-country treks. Clowns, jugglers, and magicians often appeared at Kailo breaks. "We wanted to show employees that we didn't expect anything from them," says Putnam.

The hospital encourages, but never requires, employees to attend Kailo breaks, and even pays them for their time based on salary, even if that entails overtime pay. Meals are also served. Each Kailo break is repeated nine times throughout the month, giving employees numerous opportunities to attend.

Setting up Kailo on company time and on the company's dollar makes the program inviting to employees, Robison says, adding that the payback

to the employer is hard to dispute, because people who feel good about their work and workplace are more productive. "The research is clear on that," Robison says.

As Kailo breaks entered their second year, the programs gradually broached more serious topics such as sleep deprivation, body image, workplace violence, stress, and spousal abuse. But the program coordinators still tried to keep the mood light.

In May 1999, Mercy began Kailo-For-One, which allows employees to meet with a social worker hired solely for the Kailo program. Mercy places no limits on the number of appointments an employee can make. "It's a customized wellness program that people can use to address any issues at all," explained Putnam.

Putnam reports that the response has been tremendous, with an average of 30 to 40 sessions each week. "I wouldn't recommend starting a wellness program off with this type of activity," Putnam pointed out. "First we had to build employee trust so that they would be willing to take this next step."

From the inception of Kailo, Mercy's administration consistently allocated the resources necessary to build the new employee health program, according to Putnam. Without such a strong level of commitment, Kailo might never have gotten off the ground.

"We're sort of unusual in the level of support that we've had," she says. "[Administrators] even make presentations at some of our programs. We have the budget and we have adequate staffing. I think a lot of companies won't or can't make that kind of commitment."

Shortly after the start of the Kailo program, Mercy gathered baseline data from more than 1,400 employees to determine their current health habits. Beginning in January 2000, Mercy will survey the respondents a second time to monitor the progress the effects of the Kailo program. "We're very eager to see how we've done. The results will help us determine our next step," Putnam says.

In 1998, Mercy was awarded a Best Practice Citation from the Joint Commission on Accreditation of Healthcare Organizations, and in October the hospital received the Gold Well Workplace Award from the Wellness Councils of America, a distinction given to fewer than 70 companies. ■

Letter to the Editor

Editor:

As a longtime subscriber to *Hospital Employee Health*, I have always been impressed by the scientific and technical quality of this publication. However, I am shocked and appalled to see in the November issue on page 128 that you have given free advertising space to the Allegiance Healthcare Corporation to promote the continued sales of their powdered latex gloves.

Allegiance knows, and I would have assumed that a publication of your caliber would have also known, that the government study in question was not able to, nor was it designed to measure whether or not healthcare workers are allergic to latex. I think you owe it to your readership to set the record straight.

Bill Borwegen

Health and Safety Director
Service Employees International Union
Washington, DC

Editor's note: The letter to the editor from Allegiance Healthcare Corp. was printed in response to a mistake on our part in the June 1999 issue of Hospital Employee Health. As for latex allergy, HEH has been the preeminent source of information on all sides of this issue as it pertains to health care workers, and will continue to be so in the future.

COMING IN FUTURE MONTHS

■ Medical surveillance for laser-exposed workers

■ Award-winning wellness program shares tips

■ Cincinnati hospital cited under OSHA's bloodborne pathogens standard

■ New record-keeping standard: How will hospitals be affected?

■ Reaction to the proposed ergonomics standard

Literature Review

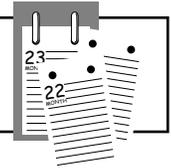
Gehanno J, Pestel-Caron M, Nouvellon M, et al. **Nosocomial pertussis in healthcare workers from a pediatric emergency unit in France.** *Infect Control Hosp Epidemiol* 1999; 20:549-552.

In cases of pertussis in health care workers, all medical staff in the unit who have had unprotected and intensive contact with the worker should be given macrolide treatment to stop any subsequent transmission, the authors advise.

Pertussis was diagnosed in a 55-year-old pediatric emergency unit nurse who had a respiratory illness and paroxysmal cough for five weeks. An epidemiological investigation was initiated to determine if any of 61 other health care workers from the same unit also had pertussis. The authors identified nine additional cases (four confirmed and five probable). To prevent transmission, all workers with cough were treated for 14 days with erythromycin, and those having acute cough were given a five-day sick leave. Despite these measures, a new acute pertussis case was identified in another nurse, who had a positive culture from nasopharyngeal aspirates. All workers in the unit were prescribed spiramycin for 10 days to prevent any further spread of pertussis. No cases of nosocomial pertussis were evident among the pediatric patients who may have been exposed to the health care workers. To prevent similar outbreaks, the authors recommend that infection control professionals consider the following measures:

- Isolate suspected or known pertussis-infected patients using droplet precautions. Health care workers should wear a mask for close contacts (i.e., intubation, bronchoscopy, or suctioning) with a patient having a clinical syndrome highly suggestive of pertussis.
- All workers who've had close contact with a pertussis patient should be given postexposure prophylaxis. New macrolides (e.g., azithromycin or clarithromycin) could be chosen, as they appear as effective as erythromycin and are better tolerated.
- Health care workers in whom pertussis is suspected should be furloughed for five days. Diagnosis of pertussis in workers should be made on the basis of clinical signs, confirmed by early culture of nasopharyngeal aspirates, or by PCR.
- If a documented pertussis case occurs in a health care worker, the only effective way to stop the spread of the disease to other workers is to provide prophylaxis for those who have been in close contact with the infected worker. ■

CALENDAR



10th Annual Regional Occupational Health Conference — Jan. 15, 2000, in Washington, DC. Topic: "Quantifying the value of occupational health and environmental health services to management." Presented by Annette B. Haag and Christine M. Kalina. For information, contact Karen Vesterby. Telephone: (301) 464-5015; fax: (301) 464-3448; e-mail: vesterby@erols.com.

Application deadline for certification examination — Board certification in occupational health nursing (COHN, COHN-S) and case management (CCM). Jan. 31, 2000, deadline for May 6, 2000, exam. Contact the American Board of Occupational Health Nurses, 201 East Ogden, Suite 114, Hinsdale, IL 60521-3652. Telephone: (630) 789-5799; fax: (630) 789-8901; Web site: www.abohn.org. ■

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Sites offer information on infection control, toxicology

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

There are a number of Web sites that give employee health service professionals news and information on toxicology, infection control, and hospital employee health services in general. Many of these sites provide continuing education credits as well. Following are some of those sites:

- The National Antimicrobial Information Network, at ace.orst.edu/info/nain/, provides information on a number of antimicrobials, including Environmental Protection Agency documents, links to other databases, and general information regarding these chemicals. The site is useful for employee education and also in choosing and/or substituting antimicrobials. It doesn't have a link to the National Library of Medicine toxicology databases, so if you can't find what you're looking for, try toxnet.nlm.nih.gov.

- The Association for Professionals in Infection Control and Epidemiology (APIC) Web site, at www.apic.org/html/resc/guidlist.html, includes guidelines, state-of-the-art reports, position statements, and standards in the area of infection control. Most of the documents on this page are free and can be downloaded, though a few must be purchased from APIC. There are extensive links to other parts of the APIC site, as well as external links to other resources such as the Centers for Disease Control and Prevention (CDC).

- "Prevention of Hepatitis A Through Active or Passive Immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP)," at www2.cdc.gov/mmwr/mmwr_rr.html, was recently issued by the CDC. As with many of the recent CDC/MMWR documents, free on-line CME/CNE/CEU is available for reading this document. The above link includes other recent MMWR documents, many of which also have free continuing education credits.

- Also, "Healthcare Workers: Protecting Those Who Protect Our Health," at www.slackinc.com/general/iche/stor0697/edit.htm, gives you the full text of an article from *Infection Control and Hospital Epidemiology*, June 1997, co-written by Linda Rosenstock, director of the National Institute of Occupational Safety and Health. It provides a brief historical retrospective and analysis of the state of affairs in hospital employee health.

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CE objectives

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

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

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