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INSIDE

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Employee Health Steps Up in a Rough Flu Season

Shot-or-mask policies drive vaccination

By Gary Evans, Medical Writer

Employee health professionals stepping up to protect workers and patients during a severe flu season can become part of the outbreak they are trying to prevent.

"I even got the flu, and of course I had received the flu vaccine," says **Linda Good**, PhD, RN, COHN-S, manager of Employee Occupational Health Services at Scripps Health in San Diego.

Although the vaccine is a mismatch this year, Good's prior immunization afforded her enough protection to bounce back quickly with antiviral administration.

"I immediately got on the antiviral, and within about a day and a half I was back on my feet, functioning," she says. "My feeling is even though we know that this year's match isn't perfect, it still gave enough protection that it was very worthwhile getting. That, along with the antiviral, was effective."

> "MY FEELING IS EVEN THOUGH WE KNOW THAT THIS YEAR'S MATCH ISN'T PERFECT, IT STILL GAVE ENOUGH PROTECTION THAT IT WAS VERY WORTHWHILE GETTING."

The CDC recently released an interim vaccine efficacy estimate that found the current shot was 25% effective against the predominant circulating H3N2 influenza A strain.[1] The vaccine has a 67% efficacy against H1N1 A and is 42% effective against influenza B viruses, the CDC reported. While these higher efficacy measures have helped, the overall flu season has been severe because 69% of the cases are due to H3N2. With the

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poor vaccine match and the tendency of H3N2 to cause severe infections, flu numbers have rivaled the 2009 pandemic and the CDC has projected a death toll in the 50,000 range.

"I am always amazed at how blasé people are about influenza," Good says. "If any other infectious disease took as many lives or impacted productivity at work as much, the public would be in a panic. But for some reason, we still hear the same excuses against immunization: 'I don't want to put substances in my body,' or 'The shot makes me sick.' I'm surprised by that."

'One of the Worst We've Seen'

Some hospitals in San Diego were inundated with flu patients.

"Our ERs were all very full, and one of our hospitals ran out of beds and they were putting people in chairs in the hallways," Good says. "We were pretty hard hit — quite a few deaths and serious cases."

Similar stories were being told in other regions, as the CDC at one point reported the unusual phenomenon of widespread flu activity nationwide.

"It's one of the worst flu seasons we've seen in our hospital, and some people getting the flu are a little sicker," says **JoAnn Shea**, RN, director of employee health and wellness at Tampa (FL) General Hospital. "With the flu shot they may not have a fever, but we have had some people out for a week, they feel so bad."

When *Hospital Employee Health* spoke to Shea in mid-February, flu cases among employees had nearly doubled from the same time the previous year.

"Last year we had 78 cases, and this year we have probably 145," Shea says. "One of my nurse practitioners just went home today with influenza B. Of those 145, just in the first two weeks of February we have had about 30 cases. There were 87 in January."

Shea uses the nasopharyngeal polymerase chain reaction (PCR) test to confirm influenza infection in ill workers.

"We actually diagnose them," she says. "So 94% of our employees received the flu shot. Only about 10% of the people who got the flu did not have the flu shot."

Though there have been some severe infections, Shea says many of the vaccinated did not suffer prolonged fever and responded quickly to antivirals.

"As soon as they come in to our clinic and are diagnosed, we give them Tamiflu," she says. "We can get our test results within an hour. We may send them home with the antivirals, and say hold on to them [pending test results] because if they are really sick we don't want them hanging around the hospital."

Criteria for return to work includes being afebrile for 24 hours without taking fever-reducing medicine. Flu vaccination for most employees was performed in November, well before it was clear how bad of a season was about to unfold.

"We had some people coming in to get flu shots in January that usually don't get them," she says. "They are supposed to get them by Nov. 30, but they read about the bad cases around the country."

Perhaps the greatest incentive for immunization is the hospital policy that unvaccinated healthcare workers must wear a mask when on duty.

"They have to wear a mask even if they are not in patient care," Shea

says. "The only time they do not have to wear a mask is if they are eating or walking in the hallways, but if they are in patient care areas or at their work station they have to wear a mask. We found [this policy] has made our vaccination rates go higher — it's hard to get over 90%. But a lot of people don't want to wear a mask, so they get the flu shot."

The San Diego health department has a similar requirement for unvaccinated workers, and Good says it has driven immunization rates up at her facility as well.

"We have about a 94% immunization rate, and the other 6% who decline have to wear a mask throughout the season when they are in any of our healthcare facilities," Good says. "That number has been pretty consistent over the last few years, regardless of how the season has gone."

Indeed, although healthcare workers were probably glad to be immunized as the severity of the season became clear, the shot-or-mask requirement has been the greatest factor in increasing the vaccination level, she says.

"I think people have accepted the idea," she says. "I don't think anyone is happy to have to wear a mask, but we put it in place a couple of years ago and I haven't gotten a lot of pushback about it."

NY Law Requires Shot or Mask

In New York, the shot-or-mask policy is a state law and clinicians are reporting similar results with increased immunization rates. One reason is that it allows workers to make a choice about immunization rather than simply having it mandated as a condition of employment, explains **Lisa Saiman**, MD, MPH, hospital epidemiologist at New York-Presbyterian Hospital in New York City.

Saiman and colleagues outline the circuitous route to success in a recent study,[2] as the immunization rate of workers at the hospital varied widely over the last decade through a series of policies and flu events.

The 2006-07 and 2007-08 flu seasons saw worker vaccination rates just under 50% with a voluntary immunization policy. The addition of a signed declination policy for the 2008-09 flu season raised the healthcare worker immunization rate to 66%. With the emergence of pandemic influenza H1N1 A in the 2009-10 season, New York state mandated vaccine for healthcare workers.

> "WE HAVE ABOUT A 94% IMMUNIZATION RATE, AND THE OTHER 6% WHO DECLINE HAVE TO WEAR A MASK THROUGHOUT THE SEASON WHEN THEY ARE IN ANY OF OUR HEALTHCARE FACILITIES."

"We got up to 90%, but that was a complete outlier year because of the pandemic," she says.

With the mandate lifted after the pandemic, vaccination reverted to a 62% level with signed declination policies. With the addition of education that included dispelling common myths about the flu vaccine, worker immunization rose to 86% in the 2012-13 season.

The state law requiring healthcare workers who declined vaccination to wear a mask became effective for the 2013-14 season, and the results were dramatic. The vaccination rate was 92% and then went beyond that as the mask option became ingrained as the standard policy.

"It is not a mandatory vaccination policy, but if you decline you have to wear a mask in all areas in which patients might be present," Saiman says. "It is very cumbersome to wear a mask all day, but people feel this gives them a choice. We got our rates up as high as 96% in 2015-16, and I can tell you anecdotally that has been sustained in the subsequent years."

While some have argued that such mask policies change behavior through stigma, Saiman says healthcare worker unions in New York like the idea.

"The unions feel that their membership is given the choice to be vaccinated or not," she says. "We are still healthcare professionals, and we are obligated to take care of our patients and our co-workers. So, if you make the decision for your own health not to [be immunized], you are at markedly increased risk of getting influenza and then making your patients and co-workers ill."

A "mask-on" date is set every year by the New York governor's office based on flu activity, she adds. While most healthcare workers have been immunized prior to that date, there typically is a number that come forward for shots when wearing a mask becomes required.

Better Than Mandate

"I think it has had a very beneficial effect," Saiman says. "If you had asked me to bet, I always

thought personally that a mandate for vaccine would be more powerful and influential. But that turned out not to be, so somebody knew a lot more about human behavior than I did. I think it is a great message for other states — that you can actually improve vaccination rates with a mandatory mask policy."

The severity of some of the flu infections this year is being widely reported, and hopefully this severe season will have a positive effect on vaccine uptake in the future. Similarly, the 2009 pandemic showed how influenza virus could emerge and spread globally after an antigenic shift.

"I think the pandemic really gave healthcare personnel a markedly enhanced understanding of how severe influenza can be," she says. "I also think that the messaging that has come out of the CDC, the New York state and city health departments, and our own workforce health and safety, is very aligned and consistent. I think healthcare personnel are really getting the message."

That message, in part, is that vaccination helps a variety of stakeholders, from the workers' own health to the protection of patients and co-workers.

"You're protecting your patients and you are protecting your family," she says. "All of those things together really are quite synergistic."

The hospital uses PCR testing to diagnose and confirm flu infection in workers, and it can also pick other respiratory viruses that may threaten patients, she adds.

"We try really hard to support healthcare workers, diagnose any viruses, and tell them to go home if they are sick," Saiman says. "That's a big challenge, but healthcare workers really need to go home to not expose patients and co-workers, and for their own health. [We tell them] go home, get some chicken soup, put your feet up, get some good sleep, and take care of yourself." ■

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Prepare for Changes to Hazardous Drug Standards

Extensive new requirements issued next year

The deadline to adopt new requirements for protecting healthcare workers potentially exposed to hazardous drugs has been extended, giving employee health professionals more time to define their role in medical surveillance and other areas.

The new standards set by the U.S. Pharmacopeia — USP 800 — were originally slated for an effective date of July 1, 2018, but the deadline has been extended to Dec. 1, 2019.

"I think they discovered that people are just overwhelmed by all that this involves, so that is good news," said **Sandy Swan**, RN, BSN, MS, COHN-S/CM, CEAS, CSPHP, manager of occupational health and ergonomics at BJC HealthCare in St. Louis.

Swan outlined the changes and explained her hospital's approach at a recent webinar held by the Association of Occupational Health Professionals in Healthcare.

The USP 800 will update its 2004 guidelines and will reflect requirements and recommendations by federal agencies like OSHA and the National Institute for Occupational Safety and Health (NIOSH). Although occupational health may not have oversight of a facility's hazardous drug policy, there is overlap of responsibilities in many areas.

"You need to make sure you are at the table," she said. "There is a piece of this that occupational health owns. A lot [people say] is owned by pharmacy, which makes a lot of sense, but like a lot of policies within our organizations, we have a piece of them even if we don't own the policy."

Hazardous drug protections that may have been off the radar in many facilities now are becoming a matter of discussion and concern by healthcare workers as the revisions are discussed.

"It makes sense that people would have questions," Swan said. "It's an obvious question: 'What about all the years I didn't have this engineering control or this procedure?'"

OSHA has been recommending hazardous drug protections since 1995, but there has generally been poor compliance and a lack of a widely accepted standard, Swan said.

"I think that's why USP 800 is pushing for more compliance and more standardization," she said.

Outlining the Threat

Often used in oncology, hazardous drugs generally include those that threaten human health with cancer and other conditions, including genetic damage and reproductive toxicity in humans. While some of these problems may present long-term, acute effects of exposure include nausea, dizziness, and nasal sores.

The three hazardous drug categories include antineoplastic (i.e., cisplatin); non-antineoplastic (i.e., phenytoin); and reproductive hazards (i.e., oxytocin), Swan said.

Of course, lists must be kept and constantly updated as new drugs come on the market. The USP issues healthcare quality standards, but has no enforcement authority per se, she said.

"They rely on government agencies to adopt their standards and enforce them," Swan said. "That could be state boards of pharmacy, Joint Commission, and CMS. Even though they are not regulatory, their standards are definitely adopted by others. So, it is important that everyone follows these standards."

The new USP standard will apply to all healthcare personnel and healthcare facilities where hazardous drugs are handled or manipulated, from receipt to disposal, she noted. This includes pharmacists, pharmacy techs, nurses, and other groups.

"Nurses who administer hazardous drugs — and, of course, environmental services — are huge," she said. "Think about who has exposure risk in your organization. We are doing so many things that are outpatient now. They are also using hazard drugs in those areas."

It is estimated that 8 million U.S. healthcare workers potentially are exposed to hazardous drugs annually. However, they may be unaware of the risk and risk reduction measures, thinking "this is just part of my job," she said.

Common reasons for drug exposures include lack of personal protective equipment (PPE), or failure to wear it if available. The recommended PPE for hazardous drug handling includes chemotherapy-approved gloves and nonpermeable gowns. Respirators equivalent to an N95 are recommended to prevent inhalation. Other exposures occur because some facilities may have limited use of closed-system drug transfer devices. Even with protocols in place, there is no guarantee that healthcare workers will follow them.

"It's human nature not to always follow policies and procedures. We take shortcuts," she said. "A lot of these consequences of exposures are long-term. They may show up 20 years later as cancer."

Climate Change

While "safety culture" has become a common term, Swan favors "safety climate," which she described as the employees' perception of how important safety is in the organization.

"Does leadership really have a commitment to safety? Perception is everything, whether it's right, wrong, or otherwise," she said.

At some point, leadership gives way to personal responsibility. Employee health professionals have likely heard the litany of reasons and excuses why a highly trained nurse may not adequately protect herself.

"I'm a nurse, so I can say this — I'm not trying to nurse-bash," Swan said. "We always say we don't have time. I have safe patient-handling experts on my team and we deal with this all the time: 'We don't have time to use the equipment.'"

Similarly, inadequate donning and doffing of PPE may be one reason skin absorption is the most common type of exposure to hazardous drugs.

"That's what we see more often, but of course inhalation can happen," she said.

Exposures may occur during preparation and administration of the drugs, during spill clean-up, cleaning work surfaces and floors, and handling contaminated wastes and linens, she said.

The USP 800 calls for a risk assessment to determine potential hazardous drug exposures to workers. That means identifying workers potentially exposed based on their job duties.

"That is not an easy task," Swan said. "I don't feel like it is occupational health's responsibility to identify all these people. We are in the process of rewriting our policy. We are going [to determine duties] that could be at risk as a kind of guideline for managers trying to determine who could have potential exposure. The managers in those departments are the ones who really need to know and identify their employees to protect them."

In addition to maintaining a drug list, the updated requirements call for education, training, and medical surveillance of at-risk employees. Engineering and safety renovations may be necessary in pharmacies,

she said. At BJC, pharmacies that only occasionally work with these drugs will stop doing so, funneling hazardous drug work to colleagues who perform it routinely.

"It's an easier way than renovating each and every one of them," she said.

The requirements also call for training and regular observance of work practices of those working with hazardous drugs. Swan recommends taking the time to walk through and observe work practices.

"I was looking at the nurses administering [drugs], and I would have to say it was sloppy," she said. "It wasn't because they were being defiant. I don't think they understood the risk they were at. Regular observance of work practices is really important. We have to keep spot-checking."

Of course, education and training is particularly important for workers who are pregnant, breast-feeding, or trying to conceive. The latter includes male healthcare workers.

"These are obviously very emotional issues," she said. "We have a prenatal reference guide, but you have to be careful because there are federal regulations that you can't discriminate against a pregnant employee. My feeling is that it is between that employee and their physician. They need to decide whether they need some kind of temporary reassignment, or some kind of work restriction."

In conducting medical surveillance of employees working with hazardous drugs, look for trends that may inform prevention. The idea is to detect and eliminate underlying causes of hazards and exposures.

"We want to see if there are trends and make sure that we can get out there and target some prevention," Swan said. "Obviously, if we catch it earlier we can minimize health effects."

Exposure incidents warrant an evaluation of the effectiveness of engineering controls, safe work practices, PPE, and education, she said.

"If we are having people who have exposures, it points right back to one of these things — are they using the PPE, do they have the education, are they following safe work practices?" she said. "What about engineering controls? Is our ventilation system working properly? Are biosafety cabinets vented correctly?"

Post-exposure follow-up should identify the drug involved, the nature of the exposure, and whether labs or treatment is indicated for the worker.

"We're lucky in our organization, as one of our occupational physicians has a specialty in toxicology," Swan said. "He is well-versed and we send people to him. It hasn't happened very often, but when it does we send them to him. It can also help alleviate some fears."

In that regard, BJC policy is that any employee concerned about an exposure can request a physician consult.

"An employee can request a physician evaluation, even if the occupational health nurse does not feel like this has really been a huge exposure," Swan said. "If the employee wants an evaluation, we absolutely send them — because that peace of mind is important."

Based on the investigation, develop an action plan to prevent additional exposures and stay in confidential communication with the exposed employee.

"These employees are usually freaked out, and I would be, too," she said. "It is important to make the time for them and send them to the right people. Make sure that you do good follow-up with them. You are going to follow these people long-term." ■

Do You Have a Toxic Employee?

Some of your best workers may seek other jobs

Toxic employees in healthcare can undermine patient and worker safety while driving off your best and brightest employees, a corporate psychologist tells *Hospital Employee Health*.

Mitchell Kusy, PhD, a professor in the Antioch University Graduate School of Leadership and Change, addresses the issue in his new book *Why I Don't Work Here Anymore: A Leader's Guide to Offset the Financial and Emotional Costs of Toxic Employees*.

We asked Kusy to field a few questions about toxic employees and the healthcare workforce.

HEH: Your book addresses this issue beyond healthcare, but you also cite specific data relating to the clinical work culture.

Kusy: Yes, in a study that a colleague and I did with 400 leaders throughout the U.S. on toxic behaviors, 39% of them came from healthcare. Much of the consulting I do is in healthcare, so I am quite

familiar with the research and literature in healthcare.

HEH: You cite in your book a study that found 71% of more than 4,000 healthcare professionals associated disruptive behaviors with medical errors. That is certainly a patient safety issue in addition to losing good employees. How do these toxic behaviors manifest in individuals?

Kusy: In our research study I conducted with Dr. Elizabeth Holloway, we found that there were there categories of toxic behavior. One is shaming, two is passive hostility, and the third is team sabotage. The one that is most associated with healthcare is shaming.

HEH: You mention the story of a nurse who could not read a medication order, but went to co-workers to see if they could read it rather than face a toxic physician.

Kusy: She believed he would bite her head off, so she went to three other people to interpret the medication order. Those are the kinds of things we are talking about in healthcare. I'm not here to demonize physicians. It happens everywhere in healthcare — nurse to nurse, lab tech to lab tech, an administrator to direct reports. Some of the research in both healthcare and nonhealthcare indicates when a customer witnesses a disruptive interchange between two employees, 80% of them will not return. We have a lot of places that we can go for healthcare. It's really important that people start recognizing that this affects patient safety and patient satisfaction, and the overall business as well.

HEH: Is shaming behavior a way for people to feel better about themselves?

Kusy: That is certainly one explanation — to make oneself look better. Another reason is that it is sort of a form of micromanaging, if everybody has to go to a certain individual to get answers to their questions. Another reason is that this is a behavior that they have learned in the past, and they have gotten away with it. There are individuals, as I say in the book, who "knock down and kiss up." Their boss may think, "I understand this person is tough on people, but he or she gets results." When people start leaving because of this person, the boss may think, "They can't hack it." But these could be very highly competent people who say "enough is enough" and they are not going to take this anymore. So they quit.

HEH: This is one of the main negative outcomes — toxic employees drive their co-workers off?

Kusy: In our research study of over 400 people, we found that 51% would likely quit as a result of a toxic individual. Some of these people that quit are some of your top performers. One healthcare study reported that 31% of nurses quit as a result of this kind of treatment. The cost of bringing in new people is incredible. Human resource studies have found that to replace an entry-level individual, it is about 50% of their annual salary. To replace a mid-level professional, it is about 150%, and to replace a high-level or highly specialized professional it is anywhere from 300% to 400% of their salary. We're talking about recruiting costs, training, opportunity costs, and lost work. We have to do something about this problem.

HEH: You also note that a perfectionist can be a toxic employee. Why is that?

Kusy: I was doing a presentation to healthcare professionals and talking about how sometimes perfectionism could be a form of toxic behavior when it does not allow people to speak up. A surgeon raised his hand and said, "Would you want to go to a surgeon who isn't perfect?" I said, "Doctor, I would want to go to surgeon, who — if he or she is about to make a mistake — someone feels comfortable enough to tell them." Human beings are not perfect, and in healthcare we make mistakes. If someone is not going to be comfortable enough to say to them, "I just noticed something here that may need correcting," then mistakes are going to happen.

HEH: How can employee health professionals use this information to help address toxic employees and help colleagues?

Kusy: First of all, feedback to people who are toxic often fails without an understanding of how toxic people function. Many times, they are clueless about the impact of their behavior on others. This can be done by talking colleague to colleague. Talk to them in a respectful way and do not use the words "always" and "never." These words often put people on the defensive. Tell these individuals how their behavior affects

others. For example, say, "When you do this, these are the kinds of things that occur among the team." Do not look at intentions. They may say, "The reason I do that is [some rationale for the behavior]." You know what, the rationale often doesn't matter. The impact of the behavior is the reason that it needs to stop. It impacts people negatively and employees are quitting.

HEH: Just to clarify, are you saying that the person that is being affected by the behavior talk to the toxic employee?

Kusy: Yes, if possible talk with the person directly. If that is not possible, then a supervisor or a qualified human resources professional can deal with this as well. The one thing you don't want to do is talk about it in a gossip kind of way. With gossip, there is a lot of what I call "secondary gain." If you work with someone who is highly toxic and you talk with other team members about how terrible they are, you get a lot of energy and reinforcement. There is a negative to that that I've seen in my consulting practice. Let's say the toxic individual is fired or finally leaves on their own — suddenly, the nontoxic team members don't know how to relate to each other. So much of their focus has been on the toxic individual. You want to deal with this in a positive way because gossip gets you nowhere. ■

Emerging Infections Threaten Healthcare Workers

Fatal infections of Lassa fever in Nigerian caregivers

In another grim reminder that healthcare workers are on the frontlines against emerging infections, an outbreak of Lassa viral hemorrhagic fever in Nigeria has infected 14 medical staff and killed four of them.

In this century thus far, healthcare workers have faced multiple emerging infections, including severe acute respiratory syndrome (SARS), pandemic flu, Ebola, and Middle Eastern Respiratory Syndrome (MERS).

Nigerian health officials reported Lassa fever totals for 2018 as of Feb. 11: 615 suspected cases and 57 deaths. Of those, there have been 193 confirmed cases and 43 confirmed deaths due to Lassa, a virus endemic to rats in the region. Infected humans can transmit the virus through blood and other body secretions. Lassa transmission can be stopped by personal protective equipment (PPE), but the 28% mortality rate in Nigerian healthcare workers underscores the risk of breaks in protocol and/or the lack of adequate PPE.

Meanwhile, three healthcare workers in Saudi Arabia were asymptomatically infected with the MERS coronavirus in a hospital outbreak in January. Other healthcare workers have experienced severe and even fatal infections since the novel emerged in the Middle East in 2012. There have been 2,160 laboratory-confirmed cases of MERS, including 773 associated deaths (36% mortality rate) reported globally, with most of the cases in Saudi Arabia, the World Health Organization reports. The coronavirus is endemic in the camel population in the kingdom.

Will Zika Return?

Employee health professionals were warned of the personal and occupational risks of Zika in 2015-16, with the infections in the U.S. including transmission via a needlestick.

In addition, concerns were raised in 2016 with the strange case of a 73-year-old hospitalized patient in the U.S. who apparently transmitted Zika to a family caregiver — possibly through tears — before dying with an incredibly high level of circulating virus in the blood.[1] The secondary case developed symptomatic Zika infection, but subsequently recovered. It is possible that hormonal treatment for prostate cancer somehow accelerated viral replication in the index case, investigators concluded.

Zika has faded back dramatically since arising in Brazil in 2015, but a virus that can cause devastating birth defects is still a threat to re-emerge. As cases declined, the CDC shut down its emergency response to Zika last year. While the virus is in retreat, the CDC still warns pregnant women against traveling to Brazil and other areas in South America and the Caribbean. *(See CDC map at: http://bit.ly/2m50Lf7.)* Also, men who travel to such areas are advised to either abstain from sex or use condoms for at least six months upon return.

"It is still on our radar, but we do not expect to see additional large outbreaks in the next couple of years — somewhere in that time frame," said **Tyler Sharp**, PhD, a CDC epidemiologist and Zika outbreak investigator in Puerto Rico. "That

becomes relevant to the U.S. because a very large majority of infections that occur here are imported."

The Zika virus is primarily spread by female *Aedes aegypti* mosquitoes, which have a broad range in the U.S. in the summer months. If the virus reaches a human fetus, particularly during the first trimester of pregnancy, it can cause horrific birth defects such as microcephaly.

Though several lines of research are underway, the lack of an approved vaccine gives Zika an opening to resurge in a susceptible population. The question now is whether it can simmer quietly and strike again when enough susceptible people accumulate in an area where *A. aegypti* live, which unfortunately includes broad swathes of the country in the warmer months.

There were 261 Zika virus infections in returning travelers in 2015 in the U.S., but the outbreak exploded to more than 5,000 cases the following year. Overall, 2016 saw 5,102 symptomatic Zika cases in the U.S., with 4,830 cases in travelers returning from affected areas. There were 218 cases of mosquito-borne transmission in Florida and six cases in Texas in 2016. There were 46 cases of sexual transmission, including one from a female to a male.

From Jan. 1 to Dec. 20, 2017, the CDC reported 385 symptomatic Zika virus disease cases in the U.S. Of those, 378 were in travelers returning from affected areas. There were three cases of local transmission by mosquitoes in the U.S. in 2017, with two in Texas and one in Florida. In addition, there were four cases of Zika acquired via sexual transmission last year in the U.S. ■

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Flu Vaccine Myths and Conspiracies

Misinformation spreads like a virus

In another falsehood pushed by antivaccine advocates, there has been an erroneous claim on the internet that the flu vaccine has somehow "caused" the current severe influenza season. The claim implies that a mutation that occurred during the standard vaccine production in eggs directly caused the flu.

As has happened before, the target H3N2 strain in the vaccine antigenically drifted during production, giving the seasonal shot an efficacy of only 25%. Of course, the vaccine does not transmit flu; it is made of killed or attenuated virus designed to stimulate immune response.

The claim that the seasonal vaccine somehow causes the flu has been a persistent myth over the years, even among some healthcare workers. Part of this may stem from people who were already exposed to flu prior to being vaccinated, and then go on to develop symptoms in the week or so it takes to build up the immune response.

A recently published survey[1] of healthcare workers found those who did not get the flu shot reported fear of the vaccine's adverse effects (31%), doubts about its efficacy (29%), concerns about its safety (22%), and lack of adequate knowledge about vaccination (16%). In contrast, those vaccinated said immunization would give them partial protection against the flu (75%), reduce workforce loss (49%), and reduce deaths and severe conditions like pneumonia (43%).

It's not just flu. The anti-vaccine movement has resulted in the reintroduction of virtually eradicated childhood diseases like the measles. Though there are many false concerns, a common fear is that the measles-mumps-rubella vaccine causes autism. Another recurrent claim is that the pediatric schedule of shots harms children due to the number of immunizations in the early years of development. Both of these myths have been thoroughly debunked, but it is difficult to persuade those suspicious of science with additional science.

In a fascinating study of the roots of psychological attitudes, researchers report that people who are against vaccinations are more likely to believe in conspiracy theories.

"Many intervention programs work from a deficit model of science communication, presuming that vaccination skeptics lack the ability to access or understand evidence," the researchers report.[2] "However, interventions focusing on evidence and the debunking of vaccine-related myths have proven to be either nonproductive or counterproductive."

They examined the psychological factors behind this impasse,

administering a questionnaire to more than 5,000 people in 24 countries. Across this dispersed global population, antivaccination attitudes were consistently highest among those who favored conspiratorial thinking. Those against vaccines also scored high in measures of a strong reaction to perceived infringements on individual freedom.

Instead of assailing these people with more science, the authors suggest a "jiu jitsu" approach of trying to align science communication with their "underlying fears, ideologies, and identities, thus reducing people's motivation to reject the science."

Ironically, they seem to conclude that it may be helpful to hint that the negative views of vaccines may be the result of a conspiracy.

"It is counterproductive to try to reduce people's conspiratorial thinking — and there is no evidence that this is feasible," the authors conclude. "Rather, one should work with people's underlying worldviews to acknowledge the possibility of conspiracies, but to show how vested interests can conspire to obscure the benefits of vaccination and to exaggerate the dangers." ■

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2. Hornsey, M J, Harris, E A, Fielding, K S. The Psychological Roots of AntiVaccination Attitudes: A 24-Nation Investigation. *Health Psychology*. 1 Feb 2018. Advance online publication. http://dx.doi.org/10.1037/hea0000586.

Nursing Group Calls for National Action on Shootings

OSHA cites facility for violence against workers

Gun violence has blurred the line between healthcare concerns and public health, as recurrent mass shootings now have a nursing group calling for national action to prevent the attacks.

After the recent shooting at a high school in Florida, the American Academy of Nursing (AAN) urged Congress to form a bipartisan National Commission on Mass Shootings. The AAN recommended that healthcare professionals be allowed and empowered to "fulfill their role in preventing firearm injuries by health screening, patient counseling, and referral to mental health services for those with high-risk danger behaviors." The nursing group noted that increased training of healthcare professionals would let them play "a greater role in preventing firearm injuries by health screening."

As previously reported in *Hospital Employee Health*, California's Occupational Health and Safety Administration (Cal/OSHA) has enacted workplace violence prevention regulations for healthcare settings. *(For more information, see the February 2018 issue of* HEH*.)* Cal/OSHA is the first state OSHA plan to adopt such a regulation. Though the current political climate does not favor regulations, federal OSHA announced in January 2017 that it will develop a national standard for violence prevention in healthcare.

Still, OSHA can enforce violence prevention to some extent through its general duty clause. OSHA recently cited Pioneer Health Care Center, a nursing home in Rocky Ford, CO, for failing to protect employees from violence in the workplace. The facility provides residential long-term care and mental health services. According to the OSHA citations, nurses suffered violent acts from residents that included bites, scratches, kicks, punches, and violent grabs. The facility has the right to appeal the citations, but currently faces proposed penalties of $9,054.

"OSHA opened an investigation at Pioneer Health Care Center in response to two complaints related to workplace violence received in August 2017," the agency reported. "OSHA subsequently identified five documented incidents of workplace violence in 2017 that resulted in employee injuries, along with several unreported incidents. OSHA issued one serious citation for failing to implement adequate measures to protect employees from workplace violence hazards."

For its part, the AAN echoed other critics after the Florida shooting in issuing a statement that "thoughts and prayers" were

not enough. The nursing group could not be reached for additional comment as this issue went to press, but the following actions were among those recommended by the AAN in its statement:

• Create a universal system for background checks.

• Strengthen laws so that high-risk individuals — including those with emergency, temporary, or permanent protective or restraining orders, and those with convictions for family violence, domestic violence, and/or stalking — are prohibited from purchasing firearms.

• Ban the future sale, importation, manufacture, or transfer of assault weapons, incorporating a more carefully crafted definition of the term "semiautomatic assault weapon" to reduce the risk that the law can be evaded.

• Research the cause of and solutions to firearm violence.

REFERENCE

1. OSHA. U.S. Department of Labor Cites Colorado Nursing Home For Workplace Violence Hazards. Feb. 5, 2018. Available at: http://bit.ly/2Hz1jkF.

Hand Hygiene: Just Do It

Prevent superbugs and Joint Commission citations

Healthcare workers who ignore the constant admonition to wash their hands between patients may inadvertently spread multidrug-resistant superbugs while drawing a citation from a visiting Joint Commission surveyor.

As employee health professionals frequently remind, hand hygiene also protects the worker and, by extension, his or her family.

In a recent study, researchers looked at the role healthcare workers play in transmitting carbapenem-resistant Enterobacteriaceae (CRE) to patients. CRE can be resistant to virtually all available antibiotics and is life-threatening to immunocompromised patients. The study setting was an academic healthcare center with regular CRE perirectal screening in high-risk units. They found that patients who acquired CRE were more likely to receive care from workers treating a CRE patient, suggesting the classic scenario of cross-transmission.

"These data support the importance of hand hygiene and cohorting measures for CRE patients to reduce transmission risk," they concluded.[1]

In a related matter, as part of its enforcement of patient safety goals, The Joint Commission (TJC) is assessing hand hygiene compliance during 2018 accreditation surveys.

"Beginning Jan. 1, 2018, any observation by surveyors of individual failure to perform hand hygiene in the process of direct patient care will be cited as a deficiency resulting in a Requirement for Improvement (RFI) under the Infection Prevention and Control (IC) chapter for all accreditation programs," TJC recently announced. The observations can be made at any point during the survey visit.

"Our surveyors are trained so that during our onsite surveys, they follow the care of the patient in conducting what we call an individual patient tracer," said **Mary Brockway**, MS, RN, director of clinical research and standards in TJC Division of Healthcare Quality Evaluation. "So that allows them to observe the clinical staff providing direct patient care throughout the survey. Patient care is fluid, but any failure to wash hands prior to providing care will be cited."

However, surveyors are not likely to correct or question a healthcare worker not following hand hygiene protocols.

"We're there to help organizations improve, and conducting the survey is part of that process," she says. "We would not normally confront a healthcare worker about not washing their hands, but we may explore further with several workers about their handwashing programs. How is the access to sinks and soaps? Have they been educated? Those types of things. We would follow up with the organization to do this as we are doing the survey process."

Those that receive an RFI citation may have the situation assessed again on a subsequent survey, Brockway says. ■

REFERENCE

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HOSPITAL EMPLOYEE HEALTH

CE INSTRUCTIONS

To earn credit for this activity, please follow these instructions:

1. Read and study the activity, using the provided references for further research.
2. Log on to AHCMedia.com, then select "My Account" to take a post-test.
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4. After successfully completing the test, a credit letter will be emailed to you instantly.
5. Twice yearly after the test, your browser will be directed to an activity evaluation form, which must be completed to receive your credit letter.

CE QUESTIONS

1. **The CDC recently released an interim vaccine efficacy estimate that found the current shot was how effective against the predominant circulating H3N2 influenza A strain?**

   a. 10%
   b. 17%
   c. 25%
   d. 42%

2. **While some have argued that flu shot-or-mask policies change behavior through stigma, Lisa Saiman, MD, says healthcare worker unions in New York like the idea of giving their members a choice.**

   a. True
   b. False

3. **Drugs hazardous to healthcare workers include which of the following categories?**

   a. Antineoplastic
   b. Non-antineoplastic
   c. Reproductive hazards
   d. All of the above

4. **OSHA recently cited a nursing home in Rocky Ford, CO, for:**

   a. failing to protect employees from violence in the workplace.
   b. nonfunctioning metal detectors on entry.
   c. punishing workers who reported violence.
   d. All of the above

CE OBJECTIVES

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

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