



HOSPITAL INFECTION CONTROL & PREVENTION

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What Is Causing Acute Flaccid Paralysis Syndrome in Children?

Infection control includes standard, contact, droplet precautions

By Gary Evans, Medical Writer

The recent increase of acute flaccid myelitis (AFM) in pediatric patients has parents distraught and investigators looking at more questions than answers. Typical onset includes weakness in the arms and legs, with the median age of afflicted children being four years old.

While some infectious agents are known to cause the condition — Enterovirus (EV)-D68 and EV-A71 — the Centers for Disease Control and Prevention has not been able find a common denominator for the outbreak.

As of Nov. 2, 2018, the CDC reported 80 confirmed cases of

AFM in 25 states across the U.S. In addition, another 139 unconfirmed cases are under investigation.

“I am frustrated that despite all of our efforts, we

haven't been able to identify the cause of this mystery illness,” **Nancy Messonnier**, MD, director of the CDC National Center for Immunization and Respiratory Diseases, said at a recent press conference.

Given the unknowns, is it possible that more cases of

AFM are occurring undetected?

“This is actually a pretty dramatic disease,” she said.

“These kids have a sudden onset of weakness. But it is certainly possible that there are people out there who

“I AM FRUSTRATED THAT DESPITE ALL OF OUR EFFORTS, WE HAVEN'T BEEN ABLE TO IDENTIFY THE CAUSE OF THIS MYSTERY ILLNESS.”

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have the disease who haven't been reported, especially mild disease."

Indeed, one of the reasons the CDC held the press conference was to get word out to parents to seek medical care immediately if they see signs of limb weakness in their children.

Other symptoms include facial droop, difficulty swallowing, and slurred speech. There is no specific treatment for AFM at present, with physical therapy and other interventions currently handled on a case-by-case basis by neurologists, infectious disease physicians, pediatricians, and other clinicians.

An alarming increase in AFM cases occurred in 2014 and has ebbed and flowed in the years since then. The emergence of AFM in 2014 occurred amid a national outbreak of EV-D68. However, investigators did not consistently detect EV-D68 in all AFM patients, suggesting that something else was causing or contributing to the increase in 2014.

The CDC is casting a wide net in investigating the current AFM cases, looking for risk factors, pathogens, and possible environmental toxins to explain the increase.

"Despite extensive laboratory testing, we have not determined what pathogen or immune response causes arm or leg weakness and paralysis in most patients," she said. "We don't know who may be at higher risk for developing AFM or the reasons why they may be at higher risk. We don't fully understand the long-term consequences of AFM."

Polio, West Nile Ruled Out

Some patients have recovered completely while others develop chronic paralytic conditions and

continue with physical rehabilitation. In this sense, AFM mimics polio in some patients, but the polio virus has not been found in any cases.

"CDC has tested every stool specimen from the AFM patients, and none has tested positive for the poliovirus," Messonnier emphasized.

The CDC knows too well the history of fear associated with polio, which paralyzed some 15,000 people annually in the early 1950s before the vaccine was available.

Polio has been eradicated in the U.S., but still exists in some parts of the world. West Nile virus also has been linked to AFM in the past, but the CDC said that vector-borne disease also has not been found in the cases under investigation.

"AFM can be caused by other viruses, such as enterovirus, West Nile virus, as well as environmental toxins," she said.

Cases also have been traced to autoimmune disorders wherein the immune system attacks tissue as if it were a foreign material.

"We've detected enterovirus in several of these individual cases," she explained.

"There's a long list of other agents that we have found in one or two."

Still, the etiology of individual cases does not add up to a "unifying diagnosis," she said.

Partnering with clinicians, the CDC is reviewing MRI scans to see whether unrecognized cases of AFM were occurring before 2014. The agency is working with sentinel sites in active surveillance to detect AFM and respiratory viruses.

Also, AFM clinical guidelines were being updated as this report was filed.

“We know of one death in 2017 in a child that had AFM,” Messonnier said.

“As a parent myself, I understand what it is like to be scared for your child. Parents need to know that AFM is very rare even with the increase in cases that we are seeing now.”

In that regard, if one looks at AFM cases within the total population of those under age 18 in the U.S., the risk is approximately one in a million.

“Ninety percent of the cases are in those 18 years of age or younger,” she said.

Although rare, the unknowns were underscored by the broad recommendations Messonnier gave to parents to protect children. These included handwashing, up-to-date childhood immunizations, and use of insect repellent.

Isolation Measures

The consensus is that the AFM paralytic symptoms are not communicable in and of themselves. However, some of the viral pathogens that can trigger the condition are infectious, so the CDC is recommending that AFM patients be under standard and contact precautions.

If an enterovirus like EV-D68 is suspected, infection preventionists should ratchet up isolation to include droplet precautions, the CDC recommends.

“Our standard of practice is to isolate patients based on symptoms,” said **Sue Dolan**, RN, an IP at Children’s Hospital Colorado in Aurora.

“For example, those with respiratory symptoms — regardless of whether they are tested or not

Tips and Info on AFM From an Experienced IP

Disinfectants, visitor screening, and restriction

Sue Dolan, RN, an infection preventionist at Colorado Children’s Hospital in Denver, has extensive experience dealing with acute flaccid myelitis (AFM) and the viruses that can trigger the paralytic condition.

Dolan provided the following comments and tips for IPs to *Hospital Infection Control & Prevention*.

Droplet Precautions for EV-D68, EV-A71

Dolan: Many enteroviruses (EV) are primarily spread via the fecal-oral route, and contact precautions are sufficient. However, EV-D68 and EV-A71 act more like respiratory viruses. They are likely to spread person-to-person like other respiratory viruses through droplets via coughing and sneezing or by manual transfer of fomites from contaminated surfaces.

The virus enters the nasopharynx and attaches to epithelial cells on mucosal surfaces and then initially spreads locally. In some patients, it becomes more invasive and can travel to other parts of the body like the central nervous system — causing neurological symptoms. It is unclear why this additional or severe invasive step occurs in some patients and not others.

AFM Rehab

Dolan: Specific [infection control] exceptions were developed for long-term patients needing therapy/rehabilitation outside their room to work toward improving their neurological deficits. Procedures were developed to allow for physical/occupational/speech therapy sessions at identified times and locations outside of the patient room. Practices were used by staff to protect themselves and other patients by proper use of PPE, patient transfer methods, and environmental disinfection.

Disinfectants

Dolan: EPA-approved hospital disinfectants with label indications against nonenveloped viruses [such as EV-D68] have broad efficacy and therefore also work against enveloped viruses.

However, the label may not specifically designate activity against enveloped or nonenveloped viruses, so look for a claim of efficacy against at least one common nonenveloped virus. If present, then you are assured it will work for EV. These include norovirus, rotavirus, adenovirus, poliovirus, and rhinovirus.

Visitor Screening

Dolan: We consider this an important step year-round to prevent visitors from bringing in contagious illnesses and to protect our vulnerable patients, as well as staff and other visitors.

(Continued on page 136)

for a pathogen — are placed in contact and droplet precautions.”

A past president of the Association for Professionals in Infection Control and Epidemiology, Dolan has been dealing with AFM and the viruses that can cause it for years.

“In pediatrics, staff have very close contact with young patients that are unable to handle their secretions and pose both contact and droplet transmission risks,” she told *Hospital Infection Control & Prevention*.

“During these outbreaks, out of an abundance of caution, we have isolated any patient admitted with unexplained neurological findings using standard, contact, and droplet precautions.”

In March of this year, Dolan’s hospital began seeing an increase in patients with enterovirus infections who also had neurological complications.

Patient samples were sent to the CDC for testing and were identified as EV-A71, she said.

Any patient with a positive EV culture of cerebral spinal fluid, throat, rectum, or blood must remain on contact and droplet precautions for the duration of their hospitalization, she said.

“We chose to keep these patients on precautions due to the concern for the severity of this disease in some patients,” Dolan said.

“We did not want to take the chance of releasing them from isolation too soon and having them mingle with other patients, for example, in playrooms.”

In addition to acute limb weakness, the telltale sign for AFM is spinal cord lesions detected via MRI.

AFM is now a reportable condition in Colorado, Dolan

(Continued from page 135)

At our hospitals, we routinely screen all visitors once a day for contagious illness symptoms or recent history prior to them entering the inpatient units. We ask about fever, rash, sore throat, cold, cough, runny nose, vomiting, diarrhea. We also ask about eye infection and active infection or recent exposure to chickenpox, measles, mumps, and tuberculosis. If they pass as not having any symptoms or exposures, they receive a sticker to wear showing they have been screened.

Visitor Restrictions

Dolan: During peak respiratory season, we have historically limited the number of visitors who can visit patients. This is an effort to decrease the burden of transmission risk during a time of multiple respiratory illnesses in the community.

In 2014, we started these restrictions earlier than usual when we began seeing the unusual outbreak of EV-68 and the severity of the illness in some patients. Because the outbreak was new and the neurological findings on these patients very concerning, we limited visitation a few months earlier than the usual Dec. 1 start date.

Also during this time in 2014, we limited and/or modified many of our community activities at the hospital in an effort to minimize transmission risk. Based on the knowledge gained in 2014, we did not need to implement additional visitor restrictions or limit community activities during the [current] outbreak and did not have any internal transmission at our facilities. ■

said, according to the following definition:

- acute focal limb weakness;
- MRI showing a spinal cord lesion largely restricted to gray matter and spanning one or more spinal segments OR cerebrospinal fluid (CSF) with pleocytosis (CSF white blood cell count >5 cells/mm³);
- CSF protein may or may not be elevated.

This definition will be proposed at the annual Council of State and Territorial Epidemiologists meeting in June, and it is expected to be adopted nationally, she said.

Back to Basics

Questions have arisen about the effectiveness of alcohol hand

sanitizers on nonenveloped viruses such as EV-D68.

Although these viruses “may be less susceptible to alcohol than enveloped viruses or vegetative bacteria, alcohol-based hand rub offers benefits in skin tolerance, compliance, and, especially when combined with glove use, overall effectiveness for a wide variety of healthcare pathogens,” the CDC notes.¹

Wash hands prior to donning and after removal of gloves, using either alcohol rubs or traditional soap and water, the CDC recommends.

“We continue to support and allow both methods at our facility, as our staff are using gloves with these patients as one part of their PPE use,” Dolan said.

“Infection prevention and control practices work,” Dolan said. “A combination of efforts within our facility and with our public health partners has helped to better understand these [AFM] outbreaks and assured that further transmission inside our facility did not occur.”

The key for IPs dealing with this type of situation, Dolan noted, is to look for trends of unusual illnesses, partner with local public health, and raise awareness through communication both locally and nationally.

“Ensure basic infection prevention and control measures are being implemented in a timely and consistent manner,” she said.

“Tweak isolation procedures when pathogens behave in different ways. Limit transmission risk by screening visitors and limiting visitation practices as needed.”

In addition, IPs should make sure their facility is cleaning and disinfecting environmental surfaces and equipment. Adjust infection practices as needed for AFM patients who may have long-term stays for rehabilitation needs, she added.

“Infection preventionists are key players in situations such as this by providing up-to-date expertise and education on routine practices, and reporting communicable diseases and unusual clusters to the health department,” Dolan said. “IPs develop a keen eye for the unusual.” ■

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AFM Peaking Every Other Year

In an unusual pattern that adds to the mystery of acute flaccid myelitis (AFM), the paralytic syndrome in children is peaking every other year in a fall seasonal pattern that began in 2014.

For example, after few cases were reported last year, the Centers for Disease Control and Prevention received increased reports of suspect cases in August, September, and October in 2018.

“There have been reported cases of AFM in many countries, but nobody else has detected this very particular pattern of disease with this seasonal clustering every other year,” **Nancy Messonnier**, MD, director of the CDC National Center for Immunization and Respiratory Diseases, said at a recent press conference.

A pattern of emergence and retreat would seem to suggest a particular pathogen or cause, but the CDC has not been able to determine a unifying diagnosis that would explain the majority of cases. The CDC has continued to test isolates and track AFM cases since the syndrome dramatically increased in 2014.

“The number of cases reported in this time period in 2018 is similar to what was reported in the fall of 2014 and 2016,” she said.

In contrast, AFM cases have been widely dispersed over many states since it emerged. “We are looking for clues, but we really haven’t seen it in the geography,” Messonnier said.

The following timeline for AFM cases is summarized below from CDC reports.^{1,2}

2014: From August to December, 120 people in 34 states were confirmed to have AFM. This coincided with a record outbreak of enteroviruses (EV)-D68 that resulted in some 1,200 confirmed cases in 49 states. Although the EV-D68 is a known cause of AFM, it was not detected in sufficient numbers of the AFM patients to be considered the sole cause of the emergence.

2015: Cases drop, with a total of 22 people in 17 states confirmed to have AFM.

2016: Cases rose with a total of 149 people in 39 states and Washington, DC, confirmed with AFM.

2017: Cases fall, as the CDC confirms only 33 cases of AFM in 16 states.

2018: The seasonal pattern holds, with cases rising again. As of Nov. 2, 2018, the CDC reported 80 confirmed cases of AFM in 25 states across the U.S. In addition, another 139 unconfirmed cases are under investigation. ■

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Hospital-acquired Pneumonia, *C. diff* Leading HAIs

But reductions made in SSIs and UTIs

Significant progress is being made in reducing surgical site and urinary tract infections, but *Clostridium difficile* and pneumonia are entrenched in Centers for Disease Control and Prevention (CDC) sentinel hospitals, researchers report.

Working with its clinical partners in the Emerging Infections Program, the CDC recently published a prevalence study of healthcare-associated infections (HAIs).¹ Overall, they reported an encouraging 16% percent drop in HAIs in 2015 compared to a 2011 baseline. However, rates of *C. diff* infections and nonventilator pneumonia showed no improvement over the period.

The hospitals each selected one day to identify and assess a randomized sample of patients. The researchers reviewed medical records using the 2011 definitions of HAIs, comparing the percentages of patients infected and using modeling techniques to determine the risk of HAIs. In 2015, some 13,000 patients in 199 hospitals were surveyed and compared with 11,300 patients in 183 hospitals in 2011.

The study hospital groups bear many similarities to facilities nationwide, but the data cannot be extrapolated to reflect all hospitals, says lead author **Shelley Magill**, MD, PhD, of the CDC Division of Healthcare Quality Promotion. That said, the hospitals are generally representative and the 2015 follow-up included 74% of the 2011 facilities.

“There are a variety of different types of facilities that participated — some are academic, some are not,” she says.

“A lot of them are urban areas, but we did have some rural hospitals, so there is some variety there.”

Overall, the research showed the HAI prevalence for all patients dropped from 4% in 2011 to 3% in 2015.

“We didn’t go in with any preconceived notions about what we would find,” she says.

“The fact that the prevalence has gone down to 3% — we were definitely pleased to see that. The 16% lower risk had to do with the modeling process, where we did try to account for some of the other factors that would play into patients’ risk of having an HAI. It was a statistically significant reduction and a positive finding.”

Non-vent Pneumonia

The high prevalence of nonventilator-associated pneumonia, which was something of a surprise in 2011, was again the leading infection in 2015.

“We really haven’t made any progress in reducing that,” said co-author **Marion Kainer**, MD, MPH, director of the Tennessee Department of Healthcare Associated Infections and Antimicrobial Resistance Program.

“We need to better understand what we can do to prevent these pneumonias. There is a very

significant opportunity for reducing patient harm.”

While ventilator-associated pneumonia is well characterized, these non-vent infections have less standardized definitions and interventions, she notes.

The findings underscore the need for ensuring good oral care, brushing the patient’s teeth, and encouraging patient elevation and movement, she says.

An unrelated study at 21 hospitals nationally shows that routine oral care of hospitalized patients and other basic measures were strongly associated with decreases in nonventilator hospital-acquired pneumonia.² Eradicating bacteria in the mouth reduces the likelihood that patients’ aspiration of oral fluids into their lungs will seed a pneumonia infection in the lungs. (See *Hospital Infection Control & Prevention*, March 2018.)

Kainer also recommends the American Hospital Association’s “Up” program to prevent pneumonia by elevating and ambulating patients. (See sidebar, page 139.)

“The idea is to get people to ambulate as rapidly as possible,” she said. “These are really good principles, and they will help reduce pneumonias.”

Another proven prevention strategy is getting devices out as soon as possible, as catheters serve as a patient restraint.

“You have the ball and chain of a urinary catheter or a central line, and you have to take the IV poll with you,” Kainer says. “Getting

devices out will not only help reduce central line- and catheter-associated UTIs, but it also should reduce these non-vent pneumonias because we are encouraging ambulation.”

C. diff

The other problem pathogen comes as no surprise, as *C. diff* has become a scourge for patients and long-term care residents nationally.

As *C. diff* rates remained relatively the same in comparing 2011 and 2015, the investigators wondered whether the increased use of nucleic acid amplification tests, or “overdiagnosis” in general, may have contributed to the result.

Overall antibiotic use did not change between the comparative periods, although there were signs that one of the most often implicated drug classes was reduced to some degree.

“We did see a reduction in fluoroquinolones specifically, so there are some improvements being made, but clearly it is challenging, with more work needed,” McGill said.

More drastic reductions of fluoroquinolones are needed if the U.S. is to see the kind of *C. diff* reductions achieved in the United Kingdom, says **William Schaffner**, MD, professor of preventive medicine at Vanderbilt University in Nashville, TN.

“*C. diff* is a huge continuing problem,” says Schaffner, who was not an author of the study.

“We have issues with early diagnosis, therapy, appropriate intervention. Fortunately, there is work to try to create a *C. diff* vaccine by several researchers. We need some sort of intervention

Get Patients ‘Up’ to Reduce Pneumonia, Other HAIs

Elevation, ambulation to prevent infections

The American Hospital Association’s “Up” campaign¹ can reduce the incidence of nonventilator-associated pneumonia, the leading HAI in a recent study.

The campaign urges basic interventions that reduce patient harm, along the following lines:

- Wake Up: Reducing unnecessary sleepiness and sedation;
- Get Up: Mobilizing patients to return to function more quickly;
- Soap Up: Performing hand hygiene appropriately to reduce the spread of infection;
- Script Up: Evaluating the need for periodic medication changes.

Begin the Up focus by asking three simple questions:

- Is my patient awake enough to get up?
- Have I protected my patient from infection?
- Does my patient need any medication changes?

Implementing the Up Campaign can result in the following improvements:

- reductions in healthcare-associated infections;
- faster recovery with fewer complications;
- safer medication use, especially narcotics, opiates, and sedatives;
- fewer falls and pressure ulcers/injuries;
- patients transitioning home sooner, stronger, and better able to adapt;
- partnerships with patients and families to prevent harm. ■

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that we could apply in advance of people getting acute risks of *C. diff* infection.”

Indeed, there are at least three different *C. diff* vaccines in some stage of clinical trials.

“Many of these vaccines have displayed good efficacy for CDI under laboratory conditions or in clinic trials,” clinicians report.³

The Good News

Citing the reduction in SSIs and UTIs, Schaffner says that overall, the glass is half full. “We continue to move in the appropriate direction. We are doing better and better in preventing healthcare-associated infections.”

Although specific interventions

to prevent infections were not included in the study, clearly the ongoing efforts to get devices and catheters out as soon as possible have reduced UTIs and other infections.

“If you exclude the presence of devices, it is not just a 16% reduction but a 24% reduction [of overall HAI risk],” Kainer says. “I think that is because we are reducing the usage of central lines and urinary catheters. That is really important.”

In addition, there has been increasing focus on appropriate diagnostic testing, particularly about collecting urine cultures, which are used typically for diagnosis of UTIs, Magill said.

The reduction in the prevalence of surgical-site infections may reflect the wider implementation of preoperative practices like decolonizing MRSA patients prior to surgery, she theorizes.

“For SSIs, it is a little more

complex, just because of the different types of surgeries and infections that occur,” Magill says. “But over this period there have been updates to surgical prophylaxis guidelines and publications looking at interventions perioperatively to prevent SSIs like decolonization.”

One thing that is certain is that infection prevention has come a long way from the days when many HAIs were regarded as an inevitable consequence of caring for high-acuity patients.

“The thinking has changed dramatically over the last couple of decades,” Magill says. “There is broad recognition in public health and the hospital community that these are patient safety issues and many of these infections are preventable.”

The HAI reductions show promise, but the entrenched infections underscore the continuing challenge to protect patients.

“We are not where we need to be,” Kainer says. “We have made significant progress, but there is still a lot of work to be done.” ■

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CDC Drafts Infection Control Guidelines for HCWs

Open for comment until Dec. 14, 2018

Preventing infections in both healthcare workers and patients is a mission so complementary that in some small facilities, it is done by the same person. There are separate departments in larger facilities, but the goal is still centered on the idea that patient safety and employee health are two sides of the same coin.

“They are not mutually exclusive, and that is a very important point,” says **David Kuhar**, MD, of the CDC’s Division of Healthcare Quality Promotion. “Transmission of diseases between personnel and patients is a two-way road that

requires safety measures for both. Just doing one or the other is never enough.”

The CDC has issued draft guidelines¹ for preventing infections in healthcare workers, urging collaboration between infection preventionists and employee health professionals. The guidelines, which are open for comment through Dec. 14, recommend that occupational health services (OHS) engage administration and other departments in infection prevention activities.

“Explicit communication and collaboration between OHS and

other departments, particularly infection prevention and control services, can improve healthcare personnel safety,” the CDC states in the guidelines.

Treatment and containment of occupational infections can protect patients and co-workers, the CDC notes. Infections acquired in the community also are a concern, particularly if workers come to work sick, as reflected in the widely reported issue of “presenteeism.” (*See related story, page 141.*)

“The updated recommendations in the draft guideline are intended to

facilitate the provision of occupational infection prevention and control services to healthcare personnel and to prevent transmission of infections between healthcare personnel and others,” the CDC stated.

The CDC is seeking a balanced approach in the infection control guidelines for healthcare workers, trying to avoid overkill without sacrificing the necessary protections for a broad range of pathogens.

“In this draft, we include examples of performance measures that could be used to measure the effectiveness of occupational infection prevention services,” Kuhar says.

“They are examples only, because there is a lot of diversity in how these programs are delivered. But these are some tangible ideas of measures they could use to track how well their program is doing.”

For example, performance measures could include tracking the number of healthcare workers who sustain potentially infectious exposures through sharps injuries, splashes to mucosal membranes, or inappropriate use of personal protective equipment.

The CDC guidelines also cite

other measures of performance, including the proportion of workers given preplacement medical evaluations, screened periodically for latent tuberculosis infection, and trained and fit-tested to use N-95 respirators.

The guidelines are geared toward routine infectious disease threats to workers, not emerging pathogens like Ebola, Kuhar says. Those outbreak situations are characterized by a lot of unknowns and can raise issues that could put worker safety and patient safety at apparent odds.

This was seen to some extent with the mask-respirator debate during the 2003 SARS outbreak, as well as the PPE issues during the 2014 Ebola outbreak. Both of those outbreaks resulted in infected healthcare workers.

These emerging infection situations are an “additional challenge to the relationship” between IPs and employee health, Kuhar notes.

“Sometimes, modes of transmission aren’t well established for these pathogens of high consequence,” he says.

Thus, a healthcare system might elect to handle exposures differently

to facilitate access to occupational health services, he adds.

“This guideline does not address emerging or high-consequence pathogens,” he says.

“Services and procedures different from the norm very well may be needed for those pathogens. That’s where the boundary is drawn on this document.”

Noninfectious adverse occupational events also are beyond the scope of the document, with the CDC deferring to its NIOSH branch to provide guidance on issues like workplace violence, patient handling injuries, and slips, trips, and falls, he says.

To review the CDC draft and submit an electronic comment, go to: <https://bit.ly/2Sx5ZNB>. ■

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Presenteeism: Working Sick Appears to Be Endemic

Disincentives to stay home, protect patients and co-workers

Healthcare facilities should have specific criteria clarifying when infected healthcare workers should stay home, as gray areas and disincentives currently result in exposures to patients and colleagues, the CDC reports.

CDC draft guidelines¹ for healthcare worker infection

prevention call for sick leave policies that encourage reporting of illness and discourage presenteeism. To do this, the CDC recommends that workers have access to clinicians with expertise in exposure and illness management 24/7 to ensure prompt testing and treatment.

Policies for exposed or ill healthcare workers should specify both how work restrictions are imposed and under what conditions personnel can return to duty.

“Specify methods of communication between occupational health services, healthcare personnel, and others

(e.g., human resources, managers) about work restrictions,” the CDC guidelines recommend.

Reporting for work ill has been a “longstanding culture” for many healthcare facilities, says **David Kuhar**, MD, of the CDC’s Division of Healthcare Quality Promotion.

“Presenteeism is a problem. Coming to work ill risks transmitting an infection to not only patients, but co-workers. Then, they can also transmit it to their patients and others that they interact with.”

However, CDC recommendations can only go so far to change an engrained culture in facilities where healthcare workers often work because, for example, they do not have paid sick leave, he says.

“That can actually encourage people to come to work when ill,” Kuhar says. “There are many things that discourage people from staying home that go far beyond the scope that can be addressed in this guideline.”

The CDC hopes to get a message through to healthcare leaders, occupational health personnel, and infection preventionists that specific policies are needed to reduce presenteeism.

“It is really helpful for every healthcare provider to know, for example, if they have a temperature above a certain threshold or a fever, they shouldn’t be showing up at work,” he says. “Preferably, they would have paid sick leave so they can stay at home and not bring in a potential infectious disease.”

The CDC concedes that developing policies that discourage presenteeism can be challenging, as different categories of workers may have different criteria for missing work.

“Clearly defining the criteria for work restrictions is a key piece for

people understanding when they can and when they shouldn’t be coming to work,” Kuhar says. “The point is if an infection is suspected, you want to make sure that people are not bringing it into a healthcare facility.”

The Rest of the Iceberg

How chronic is this problem? A recent study presented at IDWeek 2018 in San Francisco described a level of presenteeism that is likely underappreciated and occurring nationally. The disturbing details were provided by **Hilary Babcock**, MD, an epidemiologist and medical director of occupational health at Barnes-Jewish and St. Louis Children’s Hospital.

For example, the CDC recommends that healthcare workers with influenza-like illness (ILI) stay home until afebrile for 24 hours, Babcock noted. “But we know that in practice, this doesn’t always happen,” she stated.

Babcock assessed hospital policies and practices on presenteeism in a national survey, netting 232 responses.

“Most institutions have work restriction policies regarding ill healthcare workers, but there is a lot of variability in terms of policy communication, adherence, monitoring, and enforcement,” she said.

There was significant variability in the availability of flu testing, treatment, and antiviral prophylaxis, she added.

“Tracking of healthcare worker illness, presenteeism, and sick time taken is not standardized and really presents significant challenges,” Babcock said. “It makes it more difficult to track adherence to existing policies and [assess the]

potential impact of policy changes on presenteeism of healthcare workers.”

Overall, 89% of respondents reported they had an existing work restrictions policy for flu or ILI. “Only about 63% reported that this policy was communicated to staff on a regular basis, at least annually,” Babcock said. “About half reported that adherence to the policy was not monitored.”

Relaying a comment that summed up the sentiment of many, survey respondents said essentially, “We have a policy but it is mostly ignored. Healthcare personnel work with ILI all the time,” she said.

Return to work policies were sporadically enforced at many hospitals. “The lack of enforcement varied by job title, so that the ‘not-enforced’ category was highest for attending physicians,” she said.

Overall, 79 of 169 respondents who answered this question listed fever as exclusion criteria, with most requiring the afebrile period of 24 hours. However, 7% of respondents specified a set number of days excluded from work — usually five to seven days. In addition, 7% required occupational health clearance to return to work. Additional criteria at a few hospitals included wearing a mask, particularly around high-risk patients.

Overall, 44% of respondents reported they had a single pool of paid days off that they used for both vacation and illness. “Multiple comments suggested that this model of a shared pool of days off really decreases compliance with work restriction policies,” Babcock said. “People taking a sick day have actually deprived themselves of a vacation day later in the year.”

These type of arrangements as well as paid sick days and other

factors varied by department, union status, and by groups of workers.

“Policies in general were less likely to apply to physicians, residents, and students,” she said. “It was noted that many private practitioners and attending physicians really don’t have any sort of coverage scheme or [sick leave] arrangement, especially with busy clinics and surgical schedules. No one wants to cancel patients.”

A Broken System?

One of the most telling findings of the survey was that many respondents said their healthcare facility needed sick workers on the job to keep the system running.

“People noted that without presenteeism, there would be a critical shortage of providers,” she said. “They said, ‘The system is not set up to actually have these people off when they are sick. We don’t have enough providers to cover for that.’”

In addition, counterproductive policies like tying year-end bonuses to attendance certainly can discourage people from calling in sick.

“There are ongoing barriers to ill healthcare workers staying home, including financial impact, loss of vacation days, and the sense of responsibility to patients and colleagues,” she said. “Some people feel irreplaceable.”

About half of those surveyed said their facility offered influenza testing

and treatment for any employee. Another 20% offered testing only after occupational exposures. About one-third offered treatment after an occupational exposure.

“After an occupational exposure, the majority of places offered antiviral prophylaxis, but about a third based it on work location or complication risks,” Babcock said.

However, many work places did not provide antiviral prophylaxis to workers who were nonoccupationally exposed, including those, for example, who had a family member sick with flu.

“Commenters noted that occupational health was not really resourced to serve as urgent care during influenza season, and that led to a lot of practice variation,” she said.

The facilities workers’ comp policies may affect occupational health’s willingness to provide care vs. refer out for treatment, she said.

“Policies for prophylaxis might be informed by the vaccine efficacy for that year,” Babcock said.

“So if there is lower vaccine efficacy they may be more liberal with PEP, and in years with good efficacy, they might limit that a little bit more.”

With the wide variation and limited effectiveness of healthcare policies to prevent presenteeism in sick healthcare workers, an IDWeek audience member questioned whether working sick has become the “secret” new normal.

“It really speaks to the difficulty of getting hard data in a situation where you’re looking at a behavior that is fundamentally a secret,” said **Michael A. Gelman, MD, PhD**, medical director of infection control at the James J. Peters VA Medical Center in Bronx, NY.

“It’s ‘don’t mask, don’t tell.’ We need to have a mechanism for collecting data in a standardized way. We need to work with our colleagues in occupational health with support from our C-suites.”

Babcock concurred with the assessment, saying, “I think the lack of data is one of the barriers to moving this forward, and it is very difficult to track. There are a lot of competing demands that I think create challenges in that area.”

Indeed, the various loopholes and disincentives described by Babcock made it clear that sick healthcare workers are routinely reporting for duty.

“Frankly, this is affecting patients and patient care in ways that we don’t even fully understand,” Gelman said. ■

REFERENCE

1. CDC. HICPAC: Infection Control in Healthcare Personnel: Infrastructure and Routine Practices for Occupational Infection Prevention and Control Services (Draft Guideline). Oct. 15, 2018. Available at: <https://bit.ly/2JsbUPF>.



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CME/CE QUESTIONS

- 1. Nancy Messonnier, MD, said 90% of the acute flaccid myelitis (AFM) cases are:**
 - a. asymptomatic.
 - b. under 18 years old.
 - c. clustered in a few states.
 - d. completely recovered.
- 2. What year did an increase of AFM coincide with a large outbreak of Enterovirus (EV)-D68?**
 - a. 2010
 - b. 2012
 - c. 2014
 - d. 2016
- 3. In a study of healthcare-associated infections, which HAI had the highest prevalence in a group of hospitals in 2015?**
 - a. *Clostridium difficile*
 - b. Surgical-site infections
 - c. Urinary tract infections
 - d. Nonventilator pneumonia
- 4. Hilary Babcock, MD, said a respondent's comment that summed up presenteeism in healthcare was: "We have a policy, but it is mostly ignored."**
 - a. True
 - b. False

CME/CE OBJECTIVES

Upon completion of this educational activity, participants should be able to:

1. Identify the clinical, legal, or educational issues encountered by infection preventionists and epidemiologists;
2. Describe the effect of infection control and prevention issues on nurses, hospitals, or the healthcare industry in general;
3. Cite solutions to the problems encountered by infection preventionists based on guidelines from the relevant regulatory authorities, and/or independent recommendations from clinicians at individual institutions.