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CMS cutbacks get catheters out quicker, but spur questionable testing policies

First analysis of impact of 2008 cuts finds glass half full

By **Gary Evans**, Executive Editor



Grace Lee

The Centers for Medicare and Medicaid Services controversial 2008 policy to cut reimbursement for selected health care associated infections (HAIs) has led to some positive prevention measures while fulfilling some predicted unintended consequences, according to an unpublished national survey of infection preventionists.

Overall, the first research assessment of the impact of the CMS policy finds the glass more full than empty, said **Grace Lee**, MD, MPH, one of the research

leaders and an associate medical director of infection control at Children's Hospital in Boston.

"Our survey suggests that the CMS policy had a significant impact in focusing hospitals more on surveillance, education and prevention," she said. "The concern I have is that there is always a tradeoff in terms of time [and resources]. So without expanding staff, how do you not drop the ball for other infections and preventable complications? I think [the hospitals] found creative ways to do that, particularly where they streamlined their resources and made a positive impact in that way."

The survey also asked about funding for infection programs in the context of the 2008 CMS policy change. Many got the proverbial unfunded mandate — or worse.

"Three-quarters of the programs said they had the exact same amount of funding, despite the increased efforts that they needed to make," Lee said. "Fifteen percent actually said they got a little bit more funding because of this policy, but 6% felt that they got a decrease as a result of the CMS policy."

Lee and colleagues conducted a survey and accompanying

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research to assess the impact of the 2008 CMS policy changes on IPs and infection prevention resources. Preliminary findings from the study were presented recently in Baltimore at the annual conference of the Association for Professionals in Infection Control and Epidemiology. In an interview with Hospital Infection Control & Prevention at APIC, Lee said the most important measure of the CMS policy remains to be taken. Whether such fiscal incentives or similar HAI reporting requirements translate to actual prevented infections is the \$64,000 unanswered question. (See *related story, p. 100*)

"The jury is still out," Lee said. "[We need] better data on whether there truly is an impact on patients. I think what we see [in this research] is the IP's perspective of the hospital's efforts and how they have shifted and allocated resources. In general, I think that it has been a good thing that the hospital 'C-Suite' is focusing more on infection prevention. But until we see infection rate data we won't know if it has had the true intended impact to protect patients." (See *related story, p. 99*)

The survey was conducted in December 2010, as Lee and colleagues sought IP perceptions of the impact of the CMS policy change on their hospitals. In addition to the survey data, the researchers began doing "qualitative

interviews" with IPs two years ago, a process that included meeting with focus groups at APIC meetings.

"As infection preventionists you are key facilitators of HAI prevention in health care settings," she told APIC attendees. "As IPs on the frontlines of this policy change, we felt that infection preventionists were most likely to experience the tradeoffs that were occurring. We felt that you could provide the most unique perspective on the impact in the hospital."

Overall, 317 (64%) of 500 infection preventionists responded. There was no significant difference in hospital demographics for non-responders, underscoring the validity of the data collected, she said.

In one favorable sign, 57% of the IPs said the CMS policy has spurred closer working relationships between infection control and quality improvement programs to reduce HAIs. And 65% said there was greater collaboration by interdisciplinary teams to prevent HAIs.

"So though funding remained level [in many cases] there were other ways that people found to make more efficient use of their resources given the increased demands on their time," Lee said. "There was streamlined use of existing resources, greater surveillance and education efforts on the part of infection preventionists, and greater use of evidence-

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Editorial Questions

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based practices as a result of the CMS policy.”

Removing catheters, testing patients

In particular, the CMS policy led to clinical changes clearly established with reducing HAI risk. For example, many IPs reported that catheters are being removed in a timelier manner since the CMS no longer pays for the additional costs of catheter-related urinary tract infections and other “preventable” infections not present on admission (e.g., catheter-related vascular infections, infectious complications of mediastinitis.) IP respondents also reported that their hospital was increasing the use of antimicrobial coated urinary catheters (29%),

antiseptic dressings (56%) and antimicrobial impregnated central venous systems (36%) as a result of the CMS policy.

Removing catheters promptly has long been recommended as a primary infection prevention measure, but the reality at too many hospitals is that catheters and central lines are “lost in place” — left in patients until the clinical benefit is trumped by the increasing risk of infection.¹

“In terms of infection prevention practices, 71% [of IPs] said that frontline staff were more likely to remove urinary catheters more quickly than before — as a result of the CMS policy,” Lee said. “In addition, 50% said they removed central venous catheters more quickly.”

CMS: ‘Now that we have your attention.’

Funding cuts motivate some hospital leaders

While IPs would no doubt like to see even higher numbers, one effect of the Centers for Medicare and Medicaid Services 2008 reimbursement cuts is that more hospital senior administration and clinical leaders are preaching the gospel of infection prevention. Put less generously, the CMS action to shut off the cash flow for certain healthcare associated infections (HAIs) has had what certainly was one of the intended effects: A few spilled cups of coffee on the C-Suite desk.

Overall, 41% of IPs surveyed reported that their hospital executive leadership had spoken with frontline staff about infection prevention as a result of the CMS policy, said **Grace Lee**, MD, MPH, one of the research leaders of the unpublished study and an associate medical director of infection control at Children’s Hospital in Boston.

Bringing HAI prevention to the attention of administration can only help IPs struggling for program support and resources. However, only 13% of IPs felt that they were the “primary driver” for their hospital to be a safety center institution, Lee said. “Some other [IPs] felt that they were ‘somewhat of a driver,’ but I thought that low number was interesting,” Lee said.

The need for topline medical support has often been underscored through programs that include “physician champions” or “peer-to-peer” approaches to get physicians tuned in to infection prevention.

“In terms of hospital clinical leadership, a greater proportion — 67% — had spoken to

frontline staff about infection prevention,” she said. In addition, more than half of the infection preventionists felt that their frontline staff were receptive to changes in clinical processes.

Of course, that means the other half of that glass is dead empty, but another encouraging sign was that 62% of IP respondents said their frontline staff had “a sense of personal responsibility” for improving patient care and outcomes. There are limits. Only 3% said these workers felt “extremely empowered” to hold each other responsible for infection control practices. That, despite the fact that some of the most successful infection control interventions in recent years have stressed the importance of giving any health care team member the freedom to point out lapses in technique and protocol. Obviously, there is way to go in overcoming entrenched work cultures.

Not surprisingly, most hospitals facing the CMS policy changes followed the money, targeting more surveillance and education resources to the infections in jeopardy of non-reimbursement.

“In terms of the impact of the CMS policy on infection prevention, 81% of hospitals felt there was a greater focus on the HAIs targeted by the CMS policy — the UTIs, BSIs and these selective SSIs,” she said. “However, nearly a third of the hospitals said there was actually less time to prevent HAIs that were not targeted by the CMS policy. So it was really a shifting of resources from their perspective.” ■

Reporting skyrockets, will prevention follow?

'We need evidence-based policy making.'



Patricia Stone

The continuing state and federal mandates requiring hospitals to report healthcare associated infections threatens to outstrip their original justification, raising questions about whether the labor-intensive efforts will result in true reduc-

tions of HAIs, warned **Patricia Stone**, PhD, FAAN, professor of nursing and director of the Center for Health Policy at Columbia University in New York City.

"Are people getting less HAIs? We still don't know that because some people said they are just getting more careful at 'calling' that," Stone said recently in Baltimore at the annual conference of the Association for Professionals in Infection Control and Epidemiology. "Rigorous, long-term evaluation of these policies is needed to inform decision-makers. I don't think we truly know yet what is going on. It's clear we need evidence-based clinical processes because we need to know what works at the bedside, but we also need evidence-based policy making. We need to inform the policy makers whether these policies are appropriate or not."

The role of the infection preventionist is evolving, with the various forces of empowerment threatened by the growing data demands. On the one hand, IPs are reporting more time spent in their offices, as data collection and reporting requirements reduce their time on the floors and their interactions with staff, she noted. At the same time, the field has an elevated profile that offers unprecedented

opportunity.

"Your role is not the same as it used to be, it's changing and it's likely to change more," she told APIC attendees. "This is giving you an increased visibility and I encourage people to embrace this. Get the leadership skills that are needed with this increased visibility because you might be reporting more to the C-Suite. You need to manage the staff at the bedside and learn how to educate them and get them to improve their compliance — and maybe be more of a coach and a leader."

Few states have been more inundated with infection rate reporting requirements than California, which recently added some 26 different surgical site infections to the list of other HAIs already required, she noted. "California hospitals are quite concerned right now with what's been legislated," Stone said.

While reporting some of her ongoing research findings and survey data for California, her general conclusions could easily apply to IPs in other states facing similar HAI reporting challenges.

"There are intended and unintended consequences," she said. "There is frustration. People are not able to address local issues. There are varied reporting requirements between state and federal policies. The IPs are spending more time on surveillance and less time on teaching and prevention."

In qualitative data based in part on interviews with IPs, a common theme is the need for "an organizational climate with shared accountability, teamwork and effective communication structures," Stone said. "This is what everybody said they needed if they were going to decrease HAIs." ■

On the other hand, routine patient testing in the absence of clinical indication — a questionable practice that some predicted would occur if the CMS policy was enacted — was reported by more than a quarter of surveyed IPs.

"I was actually surprised by this very honestly — 27% of hospitals reported that they were routinely obtaining urine cultures on admission for those with urinary catheters," she said. "And 13% said they were routinely obtaining blood cultures on admission for those

with central venous catheters. Regardless of clinical indication — as a matter of responding to this [CMS] policy."

One theory driving this practice is that a hospital that tests patients on admission can claim some infections were acquired in the community or at another facility. The CMS policy specifically cuts reimbursement for preventable infections "not present on admission." Nevertheless, the testing practice raises ethical questions, since it essentially amounts to per-

forming a medical procedure more motivated by the hospital's bottom line than the patient's vital signs. It also opens up the possibility of inappropriate treatment.

"I think this [finding] is real," Lee said. "It's surprising that it's sadly driving practice in this direction because people feel they have to respond in some way."

The finding won't surprise **Tammy Lundstrom**, MD, JD, chief medical officer at Providence Park Hospitals in Southfield, MI, who strongly warned of the preemptive testing possibility in an interview with HIC before the CMS changes were finalized. "Everybody who comes into the hospital is going to get a urine culture to [determine if] they had bacteria when they came in," said Lundstrom, who represented APIC's position against the CMS policy. "That is a concern, because lots of women have bacteria in their urine, but are totally asymptomatic and shouldn't be treated. So if that is the strategy a lot of hospitals take it could cause a lot of people to get unnecessary antibiotics. That is one of the unintended consequences of this CMS approach." (See HIC, October 2007, p. 117.)

Making the call

According to Lee's survey, infection preventionists are also struggling with another consequence of the CMS policy, unintended or not: As surveillance and reporting of these infections are subjected to analysis and parsing, many IPs find themselves in situations akin to a baseball umpire making an extremely close call.

"We heard this a lot in the qualitative work [that included interviewing IPs]," Lee said. "Some people said the pressure was really on the billing staff and the hospital as a whole to try and modify their coding practices to 'game' the best reimbursement possible. In other hospitals, the IPs were at the frontline trying to coordinate between the physicians and the coders and get this to all work out. Which actually is a huge 'time sink' when you think about it — taking you away from all of the other activities that you want to do."

In general, the CMS policy has increased time spent on documentation for many IPs. "Over half (54%) said that their hospital spent a lot of time actually improving documenta-

tion in the Medicare records as a consequence of the CMS policy," Lee said. "To be responsive to this change — because this [CMS] policy focused on ICD-9 billing codes. Forty-nine percent said their hospital spent more effort on improving accuracy of documenting practices, which is perhaps not where you would want to be if you would rather spend your effort on prevention."

Indeed, one of the logistical problems encountered by IPs is that the CMS policy uses ICD-9 diagnosis codes for infections not present on admission. In contrast, the gold standard for surveillance and reporting HAIs is the definitions and protocols used by the Centers for Disease Control and Prevention's National Healthcare Safety Network (NHSN).

"It's really tough because it's apples to oranges," Lee says. "What infection preventionists can and should be dealing with are the NHSN surveillance definitions, and the [CMS'] are based on ICD-9 code definitions. I don't think they [are compatible] at all. They each capture a subset of each other. I don't think either is a perfect definition but at least there has been some process and thought involved in the surveillance definitions for NHSN. I think that the [hospital] billing folks are doing the best they can, given the rules that they have — [that] they are supposed to be based on physician documentation. They can't really make the judgment, and when you are documentation dependent you run into some problems."

As resources are redoubled to correctly bill the infections, other priorities may languish. "I think the real question is: Rather than focusing hospital efforts on improving how they bill [does] it make more sense to improve how to prevent infections? I think a [CMS] refocus on NHSN surveillance definitions would be a good thing."

That may be gradually happening, she told APIC attendees. "I hope that through constant, 'gentle' pressure that [CMS] will actually move away from the ICD9 codes and move toward NHSN data as the gold standard. I think that is the way to go."

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Response changes as gram neg HAIs rise

IPs should ask lab about new breakpoints



David Calfee

The U.S. public health system is trying to catch up with the explosion of infections with multidrug resistant gram negative rods (MDR-GNR) by standardizing surveillance definitions and changing laboratory

breakpoints.

How fast are these pathogens emerging? Consider that the first U.S. case of *Klebsiella pneumoniae* carbapenemase (KPC) infection was diagnosed a little more than a decade ago. (See map, below.)

"In fact, the first [KPC] isolate was identified in 2001 from a patient in North Carolina," said **David Calfee**, MD, MS, chief hospital epidemiologist at New York (City)-Presbyterian Hospital. "In 10 years we now have at least 36 states identifying at least one KPC isolate. They have become highly prevalent in some parts of the country, particularly in the Northeast U.S. Certainly, other parts of the country are experiencing similar increases."

Looking at the level of resistance that may be seen in a single infected patient, Calfee cites an antibiogram of an isolate of *K. pneumoniae* that was fully resistant to 18 antibiotics. "This is a pretty bad organism to be infected with," he said recently in Baltimore at the annual conference of the Association for Professionals in Infection Control and Epidemiology. "With this patient, tigecycline, gentamicin and tetracycline were the only antibiotics that were felt — in the laboratory — to perhaps have good activity against this isolate."

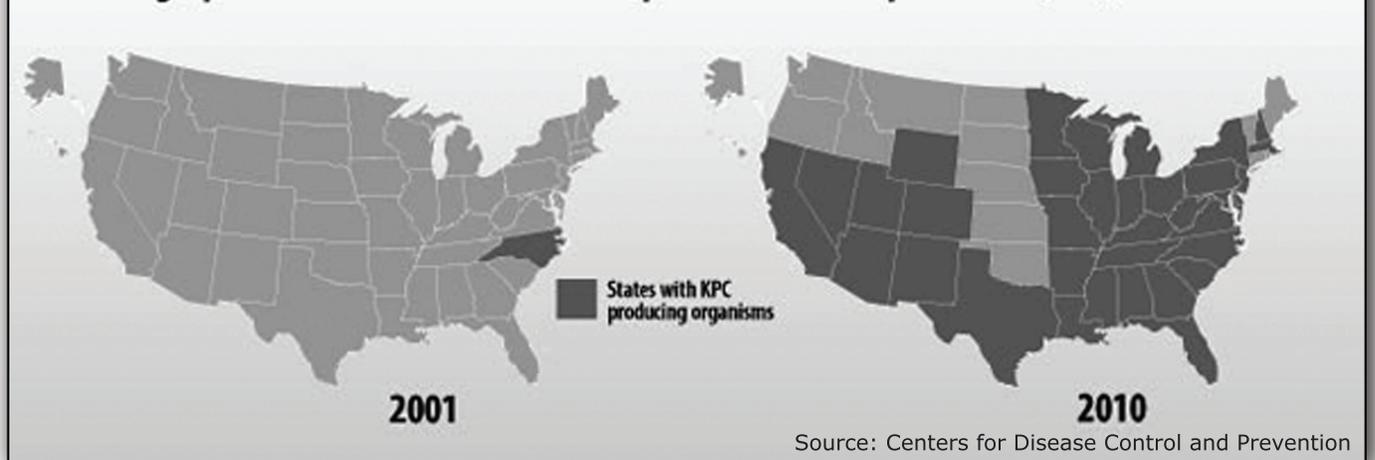
With no new drugs against the rising tide of gram negatives expected any time soon, patients must rely on infection preventionists to stop transmission of these pathogens across the health care continuum.

"We really haven't had a great new addition of new classes of antibiotics with activity against some of these highly resistant gram negative pathogens — leaving some people to talk about us heading back into the pre-antibiotic era when it comes to some of these infections (i.e., KPC)," Calfee said.

Interestingly, in global outbreaks of KPC many countries are tracing the index case to a patient who traveled from the U.S., Calfee noted. Similarly, patients from India and Pakistan are spreading another gram negative of major concern: New Delhi Metallo — Lactamase — 1 (NDM-1), which confers resistance to all beta-lactams.

"What has been particularly concerning about NDM-1 is that it has really quickly spread this [resistance] among different bacteria," he said. "Our KPC problem has mostly been in *Klebsiella pneumoniae* — there has been clonal spread of

Geographical Distribution of *Klebsiella pneumoniae* carbapenemase (KPC) Infections



a KPC-possessing strain throughout the country and the world. With this NDM-1 there has been a lot of transmission of the gene itself, from one bacteria to another.”

Though only a few cases have been detected in the U.S., it’s hard to imagine that IPs won’t be dealing with NDM-1 at some point. The resistance mechanism has spread to a variety of bacteria, including species of *Klebsiella*, *Escherichia coli*, *Enterobacter* and *Acinetobacter*.

“That is very concerning, particularly if we get NDM-1 in a lot of *E. coli* isolates in the community,” Calfee said. “Can you imagine if we have people coming in with community acquired UTIs — infections that are almost untreatable with all of our oral antibiotics. That’s why I think this has gotten more press than even KPC, which is actually at this point more prevalent, particularly in the United States.”

In a situation somewhat analogous to MRSA, an increasing proportion of some of the MDR-GNRs are becoming resistant. In Centers for Disease Control and Prevention surveillance data from 2006-2007, 59% of *Acinetobacter* isolates causing HAIs were resistant to at least three classes of antibiotics. “When you look at the others, they kind of pale in comparison, but it’s still pretty dramatic to think that 14% of *Klebsiella* isolates were resistant to three classes of antibiotics and 6% were resistant to four or more classes,” Calfee said. “Especially if you consider, a couple of decades ago these [infections] were easily treated by almost any antibiotic that you would expect to have activity against gram negatives.”

New surveillance definitions

As mentioned, Calfee cited data from 2007, and by all signs the situation has certainly not improved since. However, definitions for MDR-GNR can vary widely by facility, leaving the true national picture obscured. “[It’s] far from standardized,” Calfee said. To address the problem, the CDC’s National Healthcare Safety Network (NHSN) recently added new definitions for multidrug resistance for *Klebsiella*, *E. coli* and *Acinetobacter*. (See box, right.)

“They updated the MDRO module and gave us four different gram negative pathogens that we can monitor through NSHN,” he said. “Obviously, I think we all recognize that these

CDC sets definitions for key gram negatives

May standardize national surveillance

The Centers for Disease Control and Prevention’s National Healthcare Safety Network (NHSN) recently added new definitions for the following multidrug resistant gram negative pathogens:

Escherichia coli (CRE-*E. coli*) Definition: Non-susceptible to imipenem, meropenem, or doripenem

Klebsiella species

CephR-*Klebsiella* Definition: Non-susceptible to ceftazidime, cefotaxime, ceftriaxone, or cefepime

CRE-*Klebsiella* Definition: Non-susceptible to imipenem, meropenem, or doripenem

Acinetobacter species

MDR-*Acinetobacter* Definition: Non-susceptible to at least one agent in at least three of these six antimicrobial classes:

- Beta-lactam/beta-lactam + inhibitor: piperacillin, piperacillin-taxobactam
- Aminoglycoside: amikacin, gentamicin, tobramycin
- Carbapenem: imipenem, meropenem, doripenem
- Fluoroquinolone: ciprofloxacin, levofloxacin
- Cephalosporin: cefepime, ceftazidime
- Sulbactam: ampicillin-sulbactam

are the important ones, but they may not be the only ones we care about in our institutions.”

While the NHSN change may help standardize national surveillance for these emerging pathogens, a more subtle change in the clinical lab could actually have a more direct impact on day-to-day infection prevention. The Clinical and Laboratory Standards Institute (CLSI) has changed some of the breakpoints that determine susceptibility and resistance. As a result, cultures once labeled susceptible could now meet the definition of resistant, Calfee explained. IPs should check with lab staff to make sure everybody is on the same page, he advised.

The CLSI changes enacted last year apply to antibiotic susceptibility testing and reporting for the bacteria *Enterobacteriaceae*, which include

E. coli and *Klebsiella*.

"The CLSI recommended that laboratories lower the minimum inhibitory concentration (MIC) used to determine resistance or susceptibility for several of the cephalosporins, aztreonam and carbapenems," Calfee told APIC attendees. "This means that organisms that were previously called susceptible might now be called intermediate or resistant. It's not a change in the organism, it's a change in the definition of what is considered susceptible and what's considered resistant. These lower breakpoints might result in increased number of isolates that get classified as non-susceptible. [That could] lead to an increased number of patients that might require contact precautions and single rooms. Do you know whether your laboratory has implemented these changes or not? It's something to ask if you don't know."

At the same time, the CLSI said one result of the new breakpoints is that labs no longer have to test for extended-spectrum β -Lactamases (ESBLs), which can be used as a marker for resistance. "We think these new break points clinically are more useful to the clinician than knowing the mechanism of resistance," Calfee said. "This actually gives you clinical data that you can use."

However, again, if infection prevention and the lab are not communicating, the change in practice could be misread epidemiologically. "First, if your lab is using ESBL production as a definition of MDR gram negative pathogens — and the lab stops testing for ESBL production — how are you going to define your MDRs?" Calfee said. "You might think, 'Wow, my ESBL problem went away — I haven't had one in months.' It may just be because your lab stopped telling you about it."

It's important to know whether you have MDR-GNRs in your facility. A patient with a MDR-GNR infection is roughly at a four-fold greater risk of death than someone infected with a drug susceptible version of the same organism, said Calfee, who has considerable experience with KPC as a hospital epidemiologist in New York City.

"We found that almost 40% of patients with [KPC] died of their infection — as compared to just over 10% of patients who had a carbapenem-susceptible *Klebsiella* infection," he said. In addition, MDR-GNRs increase the risk of treatment failure, increase length of hospital stay and increase hospital costs, he added.

"There are a lot of reasons — very important patient-centered reasons — why we need to worry about these organisms and prevent their transmission," he said.

The increasing severity of outcomes is not necessarily in direct relation to virulence. With the notable exception of community-associated MRSA, resistant bacteria have generally not been more virulent than susceptible strains of the same pathogen, he said.

"These adverse outcomes are more likely due to delays in initiating effective therapy," he said. "Because we are not expecting this isolate to be resistant to our empiric regimen. It also may be that we have less effective or more toxic antimicrobial therapy. Some of these [MDR-GNR] are what we call pan-resistant. Some people are using the term XDR, extremely drug resistant pathogens." ■

OSHA moves forward with ID standard

Will California or failed TB rule be the model?

As the U.S. Occupational Safety and Health Administration moves deliberately toward an infectious diseases standard, two paradigms could spell very different fates for a proposed rule.

Is California the model, with its Aerosol Transmissible Diseases standard? Or, as some critics say, is this standard on a path similar to the tuberculosis standard, which reached the final rule stage before it was abruptly revoked?

OSHA contends that the SARS epidemic, which killed two nurses and a doctor in Ontario and sickened scores of health care workers,¹ and the H1N1 pandemic, which killed a California nurse and sickened at least 81 health care workers in the first weeks of the pandemic,² reflect the need for workplace protections against infectious diseases. By taking a broad approach — the standard will likely address airborne, droplet and contact transmission — OSHA puts the tuberculosis rule behind it.

"While the agency learned a great deal from the previously proposed tuberculosis rule, the agency is considering the current infectious disease activity in the larger context of standard and transmission-based precautions rather than

on a disease-by-disease basis," agency officials said in response to a question posed by HEH in an online chat. OSHA was scheduled to hold a stakeholder meeting in late July to gather further comments.

But many in the occupational health and infection control communities say guidelines from the Centers for Disease Control and Prevention are sufficient to protect health care workers and patients alike. They note that guidelines can change as new knowledge emerges about disease transmission, and although they are not regulatory, accrediting bodies expect hospitals to follow them.

The American College of Occupational and Environmental Medicine (ACOEM) has urged OSHA to use a "generic" approach to ensure that employers provide health care workers with appropriate personal protective equipment and training. "There is already precedent for the enforcement of health care worker protection from tuberculosis under the General Duty Clause," ACOEM said in a letter to OSHA.

In written comments to OSHA, the Association of Occupational Health Professionals in Healthcare (AOHP) noted that OSHA already has tools to enforce protections related to infectious disease hazards.

"We felt that with the current OSHA standards, including the general duty clause, respiratory protection program, personal protective equipment and recordkeeping, that those adequately protected the workers," says **MaryAnn Gruden**, MSN, CRNP, NP-C, COHN-S/CM, manager of Employee Health Services at Allegheny General Hospital and the Western Pennsylvania Hospital in Pittsburgh.

Are hospitals following CDC?

But are CDC guidelines adequate to provide workplace protection for health care workers? When hospitals fail to follow recommended infection control guidelines or provide adequate protections, an outbreak may occur. In California, that failure also can lead to citations.

That extra imperative has made a difference in spurring compliance with CDC guidance, says **Deborah Gold**, MPH, CIH, deputy chief of health for Cal-OSHA in Oakland.

Case in point: Pertussis vaccination of health care workers. In 2006, a CDC advisory panel recommended pertussis vaccination for health care workers who care for infants. That recom-

mendation was later expanded to include all health care workers with patient contact.

But as pertussis cases rose in California to the highest levels in 50 years, the California Department of Public Health found that vaccination was spotty. "Even though there had been a voluntary recommendation saying people should be vaccinated, [many] people weren't," says Gold. "The requirement in the standard helped move the vaccination program along."

Clear requirements in California meant greater protections as the H1N1 pandemic emerged, says **Bill Borwegen**, MPH, safety and health director of the Service Employees International Union (SEIU). "It was a lot easier to protect our members [with respirators] in California than it was in the rest of the country, especially when public health departments were providing conflicting advice," he says.

With the ATD standard, the requirements related to workplace protection are clearly spelled out, says Gold. "It gives everybody an understanding of what needs to be followed," she says. And if they're not, employees then have recourse to file an OSHA complaint, she says.

If employers are already in line with CDC recommendations, then they have little to worry about, she says. "A hospital or any health care facility that's doing a good job of complying with CDC guidelines is not going to find a big challenge complying with our ATD standard," she says.

What is the HCW risk?

Infection control practitioners and occupational health professionals argue that health care workers do not have higher rates of diseases than the general public — the argument that ultimately was pivotal in the scuttling of the tuberculosis standard.

"The fact that incidences among health care workers of a range of infectious diseases have not been shown to exceed population rates speaks to the effectiveness of hospital-based infection control and occupational medicine infrastructures," ACOEM said.

The Association for Professionals in Infection Control and Epidemiology (APIC) was blunt in its comments: "Because these efforts are already well-guided by other government agencies, they do not require additional monitoring by another government agency and represent

a redundant and unnecessary cost burden for employers and taxpayers. "

At the Marshfield (WI) Clinic, which serves about 1.4 million patients a year, since 1994 only one employee's illness has been linked to probable transmission from a patient — a case of H1N1, says **Bruce Cunha**, RN, MS, COHN-S, manager of employee health and safety. "Other than that, we have not been able to document a connection between seeing a patient with a disease and an employee getting a disease," he says.

"The OSH Act [which created OSHA] says in order to develop a standard, OSHA has to show there's a specific hazard," he says. "I don't see how they can do this without having good hard evidence that health care workers have any greater risk of developing disease than the general public."

Yet a recent transmission of meningitis in California illustrates the infectious disease hazard to first responders and emergency room personnel. A police officer responded to a call and found an unconscious person in his home — but did not wear respiratory protection when he tried to clear the man's airway. The police officer ultimately was hospitalized with bacterial meningitis.

So was a respiratory therapist who subsequently assisted in an intubation of the patient in the emergency department — without wearing a mask or respirator. CDC recommends "protection of the eyes, nose and mouth" when performing aerosol-generating procedures.³ The ATD standard calls for the use of respirators during "high hazard procedures" (including intubation) for droplet and airborne diseases. (The ATD standard is available at www.dir.ca.gov/title8/5199a.html.)

"We're trying to [ensure that health care workers] take appropriate precautions at each level of interaction," says Gold.

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CDC sets a standard measure for flu shots

NQF measure to improve comparisons

A proposed National Quality Forum measure may standardize the way hospitals calculate their health care worker influenza immunization rates.

Currently, when hospitals report their influenza immunization rates, both the numerator and denominator may vary widely. Are they counting vaccinations among employees who have direct patient contact? Or all employees, regardless of where they work? Are they including people who worked only part of the year? Are they counting agency staff or contract workers?

The measure proposed by the Centers for Disease Control and Prevention now covers the vaccination status of three groups:

- **Employees who worked at least 30 days during the flu season.** Previously, the measure asked hospitals to include any employee who had worked for at least one day. "That [change] is going to miss a small proportion of health care personnel, but it's going to provide something that is more feasible and something hospitals may feel is more fair," says **Megan C. Lindley**, MPH, epidemiologist with CDC's National Center for Immunization & Respiratory Diseases. "To try to capture somebody who is in there for one day or one part of one day is potentially extremely challenging, particularly for a very large institution where you have people coming in and out."

- **Licensed independent practitioners.** The measure will count non-employee physicians, advanced practice nurses and physician assistants, but not all credentialed employees. Again, this will make it clearer and easier for hospitals and reduce variation, says Lindley. "We found that over 70% of the hospitals credentialed their physician assistants and advanced practice nurses, and 96% of them credential their physicians," she says. By contrast, "Fewer than 20% credentialed therapists or technicians." Counting independent practitioners who don't require credentialing could present challenges for some hospitals, she says. "You could capture the bulk

CNE/CME Questions

1. According to a survey of infection preventionists (IPs), three-quarters of IPs reported program budget increases as a result of policy changes by the Centers for Medicare and Medicaid Services (CMS).
A. True
B. False
2. The IP survey revealed that a 2008 policy change by the CMS resulted in what positive change for infection prevention?
A. timelier removal of catheters
B. mandated flu shots for health care workers
C. universal patient testing on admission
D. all of the above
3. According to Patricia Stone, PhD, FAAN, what are some of the challenges IPs face due to increasing infection rate reporting laws?
A. More difficult to address local issues
B. Varying reporting requirements between state and federal policies
C. Having to spend more time on surveillance and less on teaching and prevention
D. All of the above
4. David Calfee, MD, MS, chief hospital epidemiologist at New York (City)-Presbyterian Hospital, expressed particular concern about genetic transfer of multidrug resistance to what pathogen in the community?
A. Klebsiella
B. Escherichia coli
C. Enterobacter
D. Acinetobacter

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

CNE/CME Objectives

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

- Identify the clinical, legal, or educational issues encountered by infection preventionists and epidemiologists;
- Describe the effect of infection control and prevention issues on nurses, hospitals, or the health care industry in general;
- 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. ■

COMING IN FUTURE MONTHS

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■ Going before the product evaluation committee

■ Does hand hygiene compliance trump HCW privacy rights?

■ APIC response to OSHA saber rattling on ID reg

■ HICPAC's latest infection prevention agenda

of the credentialed nonemployees by restricting it to those three defined groups," she says. Nurses who are credentialed through an agency would not be counted, although the hospital could require the agency to provide nurses who have been vaccinated, she says.

• **Non-employees.** This group would be limited to students, trainees and volunteers. It would not include sales people or vendors, contract personnel, or construction workers. The previous definition of non-employees was vague and could have led to different interpretations, says Lindley. "It could potentially be very, very different from facility to facility, which is contrary to the point of having a standardized measure," she says.

The numerators would be: health care personnel vaccinated at the institution and those vaccinated elsewhere, those with medical contraindications, and those who declined vaccination for non-medical reasons.

To win endorsement from the National Quality Forum, sponsors must provide data on the feasibility of implementation and the validity and reliability of the measure, Lindley says. "With these revised definitions, this provides an extremely standardized way of measuring," she says.

Hospitals had expressed concerns, especially with measuring non-employee vaccinations, in online surveys that CDC conducted with 216 health care institutions, including 80 hospitals, in four states. About half of the hospitals said their ability to determine the vaccination status of those non-employees was a major barrier.

The revised measure represents a balance designed to make measurement easier but thorough, Lindley says. "It's better to have an extremely accurate measure of 80% of personnel than it is to have an inaccurate measure that covers 100% of personnel," she says.

One thing may not change with the definitions: The burden of collecting the information. "For hospitals, in every numerator category for the three groups, paper occupational health records were the most common data source by far," she says.

In other words, most hospitals can't obtain this vaccination information simply by querying a database. Still, she says, "we were heartened that 70% of hospitals only had one person working on this [data collection]," an indication that it didn't require multiple personnel, she says. ■

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Be a team player, but don't quit your day job

'The Just One More Thing Strategy'

By **Patti Grant**, RN, BSN, MS, CIC,
Infection Preventionist, Dallas



It is safe to say various professionals in health-care are expected to participate in activities beyond their original area of expertise. This expectation does not seem so much a direct

consequence of our struggling economy as a reflection of the attempt by various specialties to move from "silos" to a team approach to problem solving. Patient safety will most likely be less precarious in this multi-disciplinary improvement environment, but it can come with hefty growing pains.

For example, I recall helping two nurse managers co-chair a central line-associated bloodstream infection (CLABSI) prevention team. The team had been in existence for several years, establishing bragging rights by lowering CLABSI rates in all intensive care units by 50% for three consecutive years. However, the real challenge came when it was time to expand the ICU success to the entire facility. This new initiative arrived with deadlines, tool-kits, and a house-wide approach. Within several months, targets for assessment, action plans, and hard-wired implementation had to be coordinated

between pharmacy, nursing, materials management, microbiology, infection prevention, organization development, physicians, and nursing staff. The patient population benefited, but the healthcare professionals might have earned some hard-earned victory scars.

If you have not yet been dubbed the "Master Patient Safety Planner," you might be tapped in the near future due to your ever-growing epidemiology training and a skill set applicable to a wide set of problems. Whether it is fall prevention, medication errors, decubitus prevention, or lowering blood culture contamination rates, the training you receive as an Infection Preventionist can be applied to most patient safety initiatives. Still, there's a Catch-22 in this equation: although your epidemiology training makes you a logical — and often the best choice — to lead teams, it does not necessarily make you the correct person for the job. Why?

As an IP you are highly specialized. Others cannot do your job when you are otherwise occupied. Your primary job responsibilities cannot be completed by others unless they are trained, a process that typically takes one to three years. No matter the new project, a balance must be found to maintain patient safety overall. So how do you function as a strong team player in patient safety initiatives beyond infection prevention and yet reserve the time necessary to safely complete your primary IP responsibilities for those within your healthcare facility?

When asked to head a team or take on another patient safety endeavor you honestly know will threaten your ability to function as an IP, consider trying the time-honored Just One More Thing Strategy:

- Talk with your immediate supervisor and share your hesitation, and then,
- Request a five-minute slot on the next executive team agenda to discuss the impact of the most recent patient safety initiative on the current infection prevention and control program. ■

Nominate a Newbie!

Do you know someone relatively new to infection prevention that would be a good candidate for one of our IP Newbie profiles? Drop us a line and tell us why you think their story may be of interest to *HIC* readers. Send nominations to gary.evans@ahcmedia.com.