Hospital Infection Control & Prevention

For 38 Years The Leading Source Of News And Comment On Infection Prevention

March 2012 Volume 39, No. 3 Pages 25-36

A house divided: A muddled mandate on health care worker flu shots goes to HHS

Infection control, occ health renew historic clash

By **Gary Evans**, Executive Editor


William Schaffner, MD

After considerable controversy that included strong objections by the nation's leading occupational health agency, a federal vaccine committee has approved a recommendation that health care facilities strongly consider mandatory flu immunization of workers if voluntary efforts fail to achieve high vaccination rates.

However, in doing so, the National Vaccine Advisory Committee (NVAC) made it perfectly clear that individual facilities can broadly define exemptions to their mandated flu shot policy. As a result, while occupational health groups and worker unions originally feared and fiercely resisted draconian policies, it is the infectious disease community — which has long favored mandates in the name of patient safety — that is left to assess a lost opportunity.

"I thought it was very unfortunate," says **William Schaffner**, MD, chairman of the Department of Preventive Medicine at Vanderbilt University Medical Center. "To me, either it's mandatory or it ain't. This actually stops one step short of mandatory. If you start issuing exemptions and some institutions [include] 'personal beliefs' — that's an exception you can drive a truck through. I saw this as a weakening of NVAC's resolve."

NVAC is an advisory committee to the Department of Health and Human Services (HHS), which now is considering action on the approved committee recommendations. Drafted by NVAC's Healthcare Personnel Influenza Vaccination Subgroup (HPIVS) the recommendations included the language that lit the fuse — that facilities failing to

In This Issue

AHC Media

Financial Disclosure:
Executive Editor Gary Evans, Consulting Editor Patrick Joseph, MD, and Katherine West, Nurse Planner, report no consultant, stockholder, speaker's bureau, research, or other financial relationships with companies having ties to this field of study.

reach a 90% immunization level "in an efficient and timely manner, should strongly consider an employer requirement for influenza immunization." *(See* Hospital Infection Control & Prevention *Feb. 2012, cover.)* The full panel approved the draft recommendations with some word-smithing and revisions at a Feb. 8 meeting, but as this issue of HIC went to press neither NVAC nor the HHS had released the exact wording of the final recommendations. The issue has been divisive, as evidenced by the comments submitted to the committee. (*See related story, p 30.*)

Though the end result was too equivocal for his taste, Schaffner emphasizes that the NVAC action still puts the mandatory policy option on the table as a federal-level recommendation.

"There are a growing number of institutions around the country that have successful mandatory programs," he says. "It will be that local pressure more than anything else that will drive institutions in this direction. However, having these kind of 'green lights' at a national level will provide the advocates of mandatory immunization further rationale and ammunition to use in their local discussions."

Committee favored local options

In terms of the exemption issue, the committee felt it was beyond its charge to specifically define a mandated policy at the local level, says **Julie Morita**, MD, co-chair of HPIVS subcommittee.


Julie Morita, MD

"There are a lot of issues that need to be considered when employers are considering mandates regarding who can be exempted," she tells HIC. "Beyond medical exceptions is there a need for religious, philosophical or personal belief exemptions? Also if people don't accept the vaccine what is the consequence? Do they lose their job, are they required to wear a mask, or are they taken off patient care responsibilities? Also bargaining with unions has to be done at the local level, so for us to make an overarching statement that fit all [facilities] would be inappropriate. We really felt like there should be some local discretion in terms of how these mandates are implemented."

Still, with the support of a cadre of major infectious disease and infection control groups behind it, NVAC voted 12-2 (1 abstention) in favor of the conditional mandate recommendation. Despite

Hospital Infection Control & Prevention®, including **Infection Control Consultant**™ and **Healthcare Infection Prevention**™ (ISSN 0098-180X), is published monthly by AHC Media, a division of Thompson Media Group LLC, 3525 Piedmont Road, Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodicals Postage Paid at Atlanta, GA 30304 and at additional mailing offices.

POSTMASTER: Send address changes to ***Hospital Infection Control & Prevention***®, P.O. Box 105109, Atlanta, GA 30348.

AHC Media is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This activity has been approved for 15 nursing contact hours using a 60-minute contact hour.

Provider approved by the California Board of Registered Nursing, Provider #14749, for 15 Contact Hours.

AHC Media is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

AHC Media designates this enduring material for a maximum of *18 AMA PRA Category 1 Credits*™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

This activity is effective for 36 months from the date of publication.

Target audience: Infection control practitioners and infectious disease physicians.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

Executive Editor: **Gary Evans**, (706) 310-1727, (gary.evans@ahcmedia.com).

Production Editor: **Kristen Ramsey**.

AHC Media

Editorial Questions
For questions or comments, call **Gary Evans** at (706) 310-1727.

Subscriber Information

Customer Service: (800) 688-2421 or fax (800) 284-3291. Hours of operation: 8:30-6. Monday-Thursday, 8:30-4:30 Friday EST. World Wide Web: http://www.ahcmedia.com. E-mail: customerservice@ahcmedia.com.

Subscription rates: U.S.A., one year (12 issues), $499. Add $17.95 for shipping & handling. Outside U.S., add $30 per year, total prepaid in U.S. funds. Discounts are available for group subscriptions, multiple copies, site-licenses or electronic distribution. For pricing information, call Tria Kreutzer at 404-262-5482. Missing issues will be fulfilled by customer service free of charge when contacted within one month of the missing issue date. **Back issues**, when available, are $78 each. (GST registration number R128870672.)

the perceived dilution of the policy, HHS approval would give hospitals considering mandatory vaccination policies a top-level federal recommendation to proceed if other methods are not working. In that regard, the vaccination component is only part of a comprehensive flu prevention program recommended by NVAC, says Morita, deputy commissioner of the bureau of public health and safety at the Chicago Department of Public Health.

"We really felt that the healthcare employers and the facilities need to establish a comprehensive influenza infection control program, including education," she says. "Our charge was to come up with evidence-based strategies. If you look at the strategies, there is great value in having comprehensive flu infection control programs. Those programs that can do that often are effective at raising their coverage levels."

Such programs could include education and training about influenza and flu transmission, respiratory hygiene protocols, and screening and isolation of health care personnel and patients with acute respiratory infection, she says. NVAC recommended that such targeted programs be incorporated within the facilities overall infection prevention program.

"The vaccine is just one component of a comprehensive program," Morita says. "This really needs to be incorporated into other aspects of infection prevention. We recognize that this is a patient safety issue."

Standard measures, reporting likely

NVAC also approved a recommendation urging the HHS to support ongoing public health efforts to standardize a method of measuring staff immunization rates. This could eventually lead to comparisons of flu shot coverage between different facilities, something that would probably drive high immunization rates even in the absence of mandates.

"Facilities are going to be under increasing scrutiny, including from the Joint Commission," Schaffner says. "I think the local availability of [flu immunization] data will eventually play a larger role than this NVAC action."

In the interim, though many hospitals have been struggling with this issue for years, NVAC does not want facilities to consider mandatory immunization until they have fully implemented the voluntary options.

"If those things aren't successful in achieving the 90% coverage in a sustained manner or in a timely fashion, then health care facilities really need to think about mandating the vaccine," Morita says. "It is important to realize we are not saying just jump to a mandate right away. People should attempt to use the other methods or other strategies first."

Despite this measured approach, the mandatory option drew strong opposition from the Occupational Safety and Health Administration (OSHA), which urged NVAC to drop the language. OSHA said in comments to the committee that there is insufficient evidence to warrant such policies, even questioning the longstanding perception that worker vaccinations can be definitively linked to improved patient safety.[1-3] OSHA's objections were considerably more forceful than the agency's position in 2009, when it issued a "letter of interpretation" regarding mandatory flu shot policies. At that time, OSHA ruled that employers may mandate the vaccination as long as they don't retaliate against employees who have "a reasonable belief" that they would have a serious medical reaction to the vaccine. There was no mention of philosophical or religious beliefs, but if a worker claims to be at risk of "a serious reaction" to the flu vaccine, OSHA says they may be protected under "whistleblower" statutes. However, OSHA appeared to be swayed by new data in its comment to NVAC, particularly a study that showed that the annual seasonal flu vaccine has an average efficacy of only 59%.[4] In that regard, OSHA raised the point that workers could be fired for not taking a vaccine that was not even effective.

"While the committee looked at some flu vaccine efficacy data, that wasn't really what we were asked to do," Morita says. "We were asked to come up with recommendations regarding evidence based strategies for achieving the goal of 90% [immunization]. We believe the flu vaccine is an effective tool that can prevent disease among health care workers and can prevent transmission to other workers and patients. Our [final] recommendation is to make a better vaccine so we are acknowledging that the currently available vaccine is not perfect. It is still a good tool and we want to optimize and maximize it."

While OSHA urged dropping the mandatory option in the recommendations, a joint statement

Mandatory flu shots an ethical obligation

"As strong case in terms of duties and obligations."

Is it unethical as a medical professional to refuse vaccination against influenza? One of the nation's leading bioethicist says it is, indeed, outlining the key issues to be considered in a provocative commentary.[1] **Arthur Caplan**, PhD, professor of medical ethics and health policy at the University of Pennsylvania Center for Bioethics in Philadelphia makes his case via the following arguments:

"First, every code of ethics adopted by physicians, nurses, nurses' aides, social workers, pharmacists, and other health-care professionals states very clearly, succinctly, and loftily that the interests of patients must come ahead of anyone else's. … Whatever one's views about personal rights to choose, unless a valid medical reason exists to not vaccinate, the best interests of the patient trumps personal choice in the hierarchy of self-imposed professional values.

"Second, all health-care workers are obligated to honor the core medical ethics requirement of 'First Do No Harm.' Given the evidence that vaccination prevents disease transmission to the vulnerable and maintains the health of health-care providers which allows them to work, the most fundamental moral requirement in all of health care demands that those in care-giving roles treat influenza vaccination as obligatory. It also requires that those who run health-care institutions and programs act on and implement that principle in the form of making vaccination against influenza a mandatory condition of employment or volunteering.

"Lastly, health-care workers have a special duty towards the vulnerable who cannot protect themselves. This is a duty that is widely acknowledged in professional codes of ethics. Newborn babies, infants, and the seriously immunocompromised can do little to protect themselves against acquiring diseases in hospitals, nursing homes, and home-care settings. Few people pick their health-care providers or even know to ask if they have been vaccinated. Health-care providers have an absolute duty to do what can be done to ensure they do not transmit diseases to those at grave risk who cannot protect themselves. Vaccination against influenza and other communicable diseases is an important step in fulfilling this duty to protect the vulnerable. It takes obvious moral priority over one's personal choice not to be vaccinated or individual delusions about why vaccination is not necessary in dealing with patients who are of necessity highly vulnerable to influenza.

"The case from professional ethics for influenza vaccination mandates is as strong a case as can be built in terms of duties and obligations. However, there is yet still another powerful moral reason to mandate vaccination for all professionals working in health care. By not vaccinating themselves, health-care workers feed vaccine fears, reinforce anti-vaccine sentiments, and set a dismally poor example for the public. Invoking personal choice in the face of obvious patient need for protection and ignoring the overwhelming safety of vaccination simply feeds public distrust of vaccination. At a time when epidemics of measles, whooping cough, and mumps are sweeping through many nations as a result of parental decisions not to vaccinate their children, is it not the duty of every health-care worker to provide a role model of what the right course of action is to take with respect to vaccination?

REFERENCE

1. Caplan, A. Time to mandate influenza vaccination in health-care workers. *Lancet* 2011; 378: 310-311. ■

by several major infectious disease groups said NVAC should make the mandate even more forceful. The Society for Healthcare Epidemiology of America (SHEA), the Infectious Diseases Society of America (IDSA), and the Pediatric Infectious Diseases Society (PIDS) cited studies that show a protective effect for patients in a joint statment.[5-12] Strongly concurring in separate comments was the Association for Professionals in Infection Control and Epidemiology. Many of the infectious disease groups are increasingly making ethical appeals for immunization in the name of patient safety. (*See related story above.*) Though neither OSHA nor the infectious disease groups got what they wanted, the local exemption policy was seen by some observers as a concession to

occupational health.

The IC — Occ Health impasse

"I was not entirely surprised by [OSHA's opposition]," says Schaffner, a longtime infection control and flu vaccine advocate who received the IDSA's Walter E. Stamm Mentor Award last year. "OSHA has never been very interested in influenza immunization let alone mandates. They regard influenza as seasonal and as something that is not distinctively occupational. It's very hard to determine where an employee — and that's their interest of course — acquires an infection."

In a broader view, the controversy reflects the longstanding philosophical rift between health care epidemiology and occupational health, which has been evidenced in previous disputes like OSHA's pursuit of a tuberculosis standard and during the emergence of SARS. At the risk of oversimplification, it is the friction that occurs when patient safety and employee health are perceived at cross purposes. What arises, as observed by former CDC director Julie Gerberding is a "conflict between the traditions and views of two disciplines" anchored in distinctly different paradigms.[13] "We have that in microcosm right here at Vanderbilt," Schaffner says. "There are a number of us who are strong advocates of influenza immunization of health care workers. We have spoken nationally and written in favor of mandates if other things don't work. At our same institution we have a valued colleague, Dr. **Melanie Swift**, who is very skeptical of mandates. We have had some informed discussions about this. There are split opinions about this by highly intelligent and well-intentioned people."


Dr. Melanie Swift

To precisely that point, Swift and some of her occupational health colleagues saw the flexibility lamented by Schaffner as a favorable outcome.

"At first blush, it may seem to people that if you can't get to 90% you should mandate flu vaccine," says Swift, MD, medical director of the Vanderbilt Occupational Health Clinic. "That's really not what it says if you read it closely. The definition for employer requirement that the group created is pretty broad and allows the employer to determine what their requirement and consequences are going to be. I think that flexibility is absolutely crucial."

Swift participated in the NVAC discussions as a liaison member of the subcommittee representing the American College of Occupational Health.

"There are places where a mandatory vaccine program can work," she says. "That's fine for those places. There are places that have different organizational cultures and different organizational structures where that's just not feasible at all. There are variable levels of desire to mandate a vaccine, given the limitations of the current vaccine."

For example, the Mayo Clinic in Rochester, MN, attained an 88% vaccination rate by early January of this year. Mayo has mandatory compliance — but not mandatory vaccination. Employees must receive their vaccine or view an education module and electronically sign a declination statement by the end of January.

"The [NVAC recommendations] were sufficiently vague, and I think appropriately so, to allow each institution to determine what they consider to be a requirement," says **Bill Buchta**, MD, MPH, medical director of Mayo's Occupational Health Service. "I don't think we can be nationally prescriptive on this."

Writer Michelle Marill contributed to this story

References

1. Jefferson T, et al. Vaccines for preventing influenza in healthy adults. *Cochrane Database Syst Rev* 2010;(7)(7):CD001269.doi: 10.1002/14651858.CD001269.pub4.

2. Michiels B, et al. A systematic review of the evidence on the effectiveness and risks of inactivated influenza vaccines in different target groups. *Vaccine* 2011;29(49):9159-9170. eoi:10.1016/j.vaccine.2011.08.008.

3. Thomas RE, et al. Influenza vaccination for healthcare workers who work with the elderly: Systematic review. *Vaccine* 2010;29(2):344-356.doi:10.1016/j.vaccine.2010.09.085.

4. Osterholm MT, et al. Efficacy and effectiveness of influenza vaccines: A systematic review and meta-analysis. *Lancet Infect Dis* 2012;12(1):36-44. doi:10.10116/S1473-3099(11)70295-X.

5. Carman WF, et al. Effects of influenza vaccination of health-care workers on mortality of elderly people in long-term care: a randomised controlled trial. *Lancet* 2000;355:93-7.

6. Salgado CD et al. Preventing nosocomial influenza by improving the vaccine acceptance rate of clinicians. *Infect Control Hosp Epidemiol* 2004;25(11):923-8.

7. Hayward AC, et al. Effectiveness of an influenza vaccine programme for care home staff to prevent death, morbidity, and health service use among residents: cluster randomised controlled trial. *BMJ* 2006;333(7581):1241-6.

8. Shugarman LR, et al. The influence of staff and resident immunization rates on influenza-like illness outbreaks in nursing homes. *J Am Med Dir Assoc* 2006;7(9):562-7.

9. van den Dool C, et al. The effects of influenza vaccination of health care workers in nursing homes: insights from a mathematical model. *PLoS Medicine* 2008;5:1453-1460.

10. Lemaitre M, et al. Effect of influenza vaccination of nursing home staff on mortality of residents: a cluster-randomized trial. *J Am Geriatr Soc* 2009;57(9):1580-6.

11. vanden Dool C et al. Modeling the effects of influenza vaccination of health care workers in hospital departments. *Vaccine* 2009;27:6261-7.

12. Hayward AC, et al. Effectiveness of influenza vaccination of staff on morbidity, and mortality of residents of long term care facilities for the elderly, Vaccine 2011;29(13):2357-8.

13. Gerberding, JL. Occupational Infectious Diseases or Infectious Occupational Diseases? Bridging the Views on Tuberculosis Control. I*nfect Control Hosp Epi* 1993; 14: pp. 686-688. ■

Comments reveal a sharp divide

'I believe strongly that what you are doing is criminal.'

The medical community appears to be deeply divided over a federal recommendation that would push the health system toward mandatory flu shot policies for health care workers.

A summary of the comments submitted to the National Vaccine Advisory Committee (NVAC) reveals the following breakdowns:

Public comment was submitted by 145 individuals including a number of health care personnel across the health care sector. The comments are almost exclusively in response to the mandate option in recommendation 4. While the comments represent opinions and personal accounts, NVAC reports that most of them can be categorized into the following themes:

Individuals that oppose Recommendation 4:

- Personal Autonomy (94 responses)
- Concern over adverse events (specific to the influenza vaccine) (45)
- Concern over vaccine effectiveness (specific to the influenza vaccine) (43)
- Concern over vaccine safety (specific to the influenza vaccine) (26)
- Concern over exemption policies that did not include religious, philosophical, and personal exemptions (26)
- Concerns that there is an insufficient scientific basis for mandatory vaccine policies (23)
- Concerns over vaccine safety (general) (20)
- Concerns over adverse events (vaccinations in general) (19)
- Liability for adverse events under mandatory policies (8)

Individuals that support Recommendation 4:

- Support for draft recommendations (general) (10)
- Support for draft recommendation 4 (as a patient safety measure) (5)

More evenly divided were public comments submitted on behalf of 37 organizations/ associations in response to the recommendations, with most of them specifically commenting on the mandatory provision. Overall, 15 groups directly stated support for Recommendation 4, including 13 professional associations and 2 non-profit organizations. In contrast, 16 organizations/ associations directly opposed Recommendation 4, including 12 labor organizations, 2 non-profits, 1 professional association, and 1 federal agency (OSHA).

No mandate = 'a lot of pizza parties'

Individual comments posted by NVAC (http://1.usa.gov/uD3hDz) included remarks from nurses and physicians:

RN: "I am a certified registered nurse anesthetist, and I'd like to have a voice on flu vaccines. I will not have a flu vaccine. The only time I've ever had the flu was a few days after receiving a flu vaccine. I am also against vaccines altogether and believe that I have the right to refuse to have any more."

MD: I am strongly supportive of these recommendations. Resistance to influenza immunization among health care workers remains a stubborn problem with serious consequences for patients/communities in our care. I would even suggest strengthening recommendation 4 to require a mandatory influenza immunization in situations where health care employee uptake is unacceptably poor.

RN: I work in a County Hospital Intensive Care Unit. I implore you to carefully reconsider any recommendation which encourages employers to require the flu shot as a condi-

tion of employment with only medical exemptions. The flu vaccine itself is problematic due to shifting strains, changing virulence of the virus and the challenge of predicting the next year's predominant strains. The efficacy of influenza vaccine can vary from ineffective on non-matched years to as high as perhaps 80 or 90% on well matched years. The major studies that are cited by employers indicating that vaccinating health care workers reduces illness and death in elderly patients have been reviewed by the Cochrane Collaboration. The Cochrane Collaboration reanalyzed the data presented and found the results to be quite different than the conclusions the authors themselves drew. This fact in itself leads one to believe that further, unbiased research must be conducted before any mandate can be made."

RN: I am a nurse and my organization went to a mandatory vaccination policy and I was terminated this week for refusing to comply with the policy. I walked away from a nearly 6 figure job because I feel so strongly about my choice in my own health. I do not believe people should be mandated to be injected with substances that have toxins such as mercury and others in it. Most vaccination efforts fail to provide informed consent as well — there are serious and sometimes life threatening side effects to vaccines. There are more natural ways to prevent illness/flu that are healthier and have less risk than shots. I would likely leave healthcare all together before subjecting myself to unwanted & mandated injections. As healthcare workers, we are patients as well, and we should be able to retain the right to refuse certain treatments/care just like our patients can — especially when it is done conscientiously, while implementing other wellness activities such as vitamin supplementation that strengthens immunity."

MD: The goal for Healthcare Organizations should be 100% vaccination with only exemptions for those with a well document allergy to the vaccine. To get to that % (and even to get to 90%) we need legislation that requires healthcare workers to either get vaccinated or wear a mask at all times, during influenza season. Most organizations are getting their rates into the 75% range. Moving that to 90% without it being mandatory will take large amounts of resources (and a lot of pizza parties) to achieve. These resources will be diverted from other Infection Prevention and Control activities, activities that are just as, if not more important. We already see results from organizations that have made vaccination or mask wearing mandatory — rates of vaccination in the high 90% range. For those of us with union workers the ability to mandate this is difficult. Specifically nursing unions are strongly opposed to mandating vaccination or mask wearing (hard for me to reconcile that stance and the statement that these unions make that they are all about Patient Safety). Without legislation to mandate vaccination or mask, we will either spend many more resources than we should on this or not get to 90%.

RN: "I am a registered nurse in Indiana and I am very upset about the current vaccine mandates by my hospital. I have never received an influenza vaccine and I never plan to. I believe that it is a serious violation of my civil rights to be "forced" to do so in order to keep my job. Many of our physicians, especially the neurologists, are well aware of how dangerous the influenza vaccination is. They have cared for people with serious neurological side effects from the shot. It is not a very effective vaccine (around 60% efficacy) … Health care workers should never be asked to place themselves at risk of serious life-altering side effects. And they should never be forced to choose between their livelihood and their convictions. I believe strongly that what you are doing is criminal." ■

CDC, state health building a bridge

States on the cutting edge of HAI prevention

State health departments are becoming vital partners with the Centers for Disease Control and Prevention in an increasing national effort to eradicate healthcare associated infections (HAIs).

Many state health departments initially became engaged in HAI prevention as state infection reporting laws spread across the map. There is the potential for considerably more than data collection, however, as state health departments are uniquely positioned to help the CDC move surveil-

lance and prevention measures beyond the hospital and into a wide variety of settings like dialysis centers and long-term care.

"We are very focused on increasing the role of state health departments," says **Michael Bell**, MD, associate director for infection control in the CDC's Division of Healthcare Quality Promotion. "The reason for that is [for example] the world of dialysis organizations is completely detached from many of the hospitals. Similarly, if I am Kaiser [Permanente, managed care consortium] I may not be able to see anything happening outside of the Kaiser world — even though I have a great network. The one place that has access to and authority over all of that is the state health department."

The traditional line between public health and infection control is disappearing, as patients move across the continuum and take the full panoply of HAIs with them. As state collaboratives emerge linking the CDC, health departments, hospitals and outpatient settings, infection preventionists and their new-found allies may finally be in a fair fight with elusive HAIs.

"We are helping [state health departments] — funding them, giving them people, training them," Bell tells *Hospital Infection Control & Prevention.* "We are working as well as we can with them so we have a partner that can say, "I'm watching all of this, and that problem you're seeing in the hospital is actually related to this long-term care facility or that dialysis center.' It's a very important piece."

The future of these critical collaboratives will inevitably depend on continued state and federal funding, with likely emphasis on the latter. With HAIs targeted early in the health care reform debate as "low-hanging fruit" for investment and action, there has been considerable federal allocation toward collaborations with state health departments. According to a report recently issued by the CDC and the Association of State and Territorial Health Officials (ASTHO), many "state stakeholders" participating in HAI collaborative projects benefited from the American Recovery and Reinvestment Act of 2009 funding.*(See editor's note below.)*

"Stakeholders expressed concern about the long-term sustainability of their programs," the report states. "In cases where enduring funding streams are not available, stakeholders indicated that seed money, bonus payments, or facility improvement grants from third-party private payers may enable HAI efforts and support the implementation of cost-saving, self-sustaining programs."

The challenge to prove prevention

It's a dilemma familiar to the IP, proving the power of prevention to secure continued and increased funding. However, state HAI policies are relatively new, with most originating since 2006. Beyond the data generated by mandatory public reporting, little published information is available regarding the effect of HAI-related policies on infection rates, the report notes. While it may be too early for outcome data that link specific policies to HAI reduction, other indicators can help to describe best practices, the CDC and ASTHO concluded, citing such examples as:

- **New York:** Adult and pediatric central line-associated bloodstream infection (CLABSI) rates have decreased by 18% in the state since 2007 after adjusting for type of intensive care unit. Numerous participants attributed the success of disclosure policies in New York to the auditing of reported data and the initial pilot reporting program, that allowed the state to refine requirements and educate facilities on reporting.
- **Tennessee:** According to state health agency representatives, the 2010 reduction in CLABSI rates in facilities can be attributed in part to public reporting of validated facility-specific rates.
- **Colorado:** Participants observed that the mandatory reporting requirements have yielded benefits by elevating infection prevention to the attention of facility leadership; but they expressed reservations about the quality of the data due to the need for clear, consistent definitions for measurement.

Most stakeholders agreed that public reporting is an important component of HAI programs, but many are not confident that reporting alone will affect infection rates without other interventions, the report found.

"While many individuals acknowledged that reporting alone does not change behavior, stakeholders indicated that the requirement raised the awareness of facility leadership, elevating the importance of HAI reduction and elimination to priority status for senior executives," the report states. "Many stakeholders asserted —despite doubting that members of the general public regularly used or accurately interpreted the reported data — that no facility wanted to be reported as having the 'worst HAI numbers in the state,'" the report found.

Culture change

Beyond the reporting issue, there are signs of an overall culture change. Stakeholders frequently cited culture and leadership awareness as enabling factors to the success of HAI policies, including the following:

- **California:** The creation and implementation of the state's HAI policies have elevated the importance of infection control and prevention professionals and environmental services within healthcare facilities.
- **Massachusetts:** The state has maintained strong communication, from the leadership to the front line, which has contributed to the effectiveness of the state's HAI policies.
- **Pennsylvania:** The state's success is due in part to several leaders, from various state organizations to facilities, who foster a culture that supports HAI reduction.
- **Tennessee:** Leadership, collaboration, and public reporting have exercised a strong, positive influence on HAI reduction in the state. The foundation for successful HAI policy interventions was laid through the state's early involvement of key stakeholders in deliberations to inform the policy-making process, including payers, consumers, medical associations, and infection control and prevention professionals. One participant noted that while training helps to establish a basic understanding of needed practices, institutional and professional culture change is imperative to successful implementation.

Editor's note: The CDC/ASTHO report: "Policies for Eliminating Healthcare-Associated Infections: Lessons from State Stakeholder Engagement" is available at: http://1.usa.gov/AtXTKf ■

Abstract & Commentary

Does contact isolation raise risk of delirium?

By **David J. Pierson**, MD, Professor Emeritus, Pulmonary and Critical Care Medicine, University of Washington, Seattle.

To examine the association between being placed in contact isolation and delirium, Day and colleagues at the University of Maryland Medical Center reviewed administrative data on all patients admitted during a 2-year period ending in 2009. They excluded patients with underlying schizophrenia or bipolar disorder, those admitted to the psychiatry service, and alcohol-related admissions, as well as patients under age 18. Patients placed into contact isolation during hospitalization were stratified into those assigned this status on admission (because of pre-existing risk or documented infection) and those subsequently moved into isolation (because of positive surveillance or clinical cultures, acquired risk, or other factors). Because delirium is underdiagnosed and incompletely identified by its direct ICD-9 code, the authors also used as proxy measures the otherwise-unexplained use of haloperidol or other antipsychotic drugs and the use of physical restraints during the admission. They performed selected chart reviews to assure that the variables under study were recorded in the administrative database with acceptable accuracy.

Of 70,275 admissions during the study period, 60,151 (in 45,266 unique patients; 9869 ICU admissions) were evaluated after a priori exclusions. Contact precautions were used in 9684 admissions (15%), 58% of them from the time of admission and 42% commencing at some point following admission. The authors' criteria for delirium were met in 7721 admissions (13.5%). Overall, patients placed in contact isolation at any time during hospitalization were twice as likely to have delirium compared to non-isolated patients (16.1% vs 7.6%, respectively; odds ratio [OR], 2.4; 95% confidence interval [CI], 2.2-2.5%). There was no relationship between contact precautions and delirium among patients who were placed in isolation immediately on admission. However, being moved into isolation sometime after admission because of identification of a multiple-drug-resistant bacterium was associated with increased risk for delirium (OR, 1.75; 95% CI, 1.60-1.92; $P < 0.01$). Although ICU patients had significantly more delirium than non-ICU patients, being placed in contact isolation had no independent effect.

COMMENTARY

Delirium, which occurs in about 15% of all hospitalized patients and is considerably more

common in the ICU, is associated with numerous bad outcomes, including increased mortality, morbidity, and length of stay. Under current recommendations by the Centers for Disease Control and Prevention, contact precautions — including the use of gloves and gowns and isolation in a private room — are now used in a substantial number of hospitalized patients. Several studies have documented that physicians, nurses, and other clinicians interact with patients in isolation less often than non-isolated patients, and that those in isolation have more symptoms of depression and anxiety. Because decreased environmental stimuli predispose to delirium, it is hardly surprising that patients placed in isolation are more likely to develop this important disorder.

This study does not show that isolation causes delirium. Patients placed in isolation had increased mortality and lengths of stay, were more likely to be admitted to the ICU, and had more positive cultures suggesting clinical infections with resistant organisms than patients who were never placed in contact precautions. Thus, delirium was likely influenced by some or all of these and other factors that could not be controlled for in a retrospective study. The fact that patients placed in isolation from the time of admission — because of a past history of colonization with resistant organisms or the presence of specific risk factors — did not have a higher risk for delirium suggests that those who required the institution of contact precautions subsequent to admission were sicker and perhaps more predisposed to delirium in the first place. These points are acknowledged by the authors.

I think the important contribution of this study is the spotlight it shines on contact isolation as a marker for the development of delirium. Regardless of the contribution of isolation per se to this development, knowing that isolated patients are at increased risk can help — at the level of the individual clinician as well as for hospital policy — with respect to efforts at early detection, appropriate treatment, and prevention of this important complication of acute illness.

SOURCE: Day HR, et al. Association between contact precautions and delirium at a tertiary care center. *Infect Control Hosp Epidemiol* 2012;33: 34-39. ■

iP Newbie
Practical Tips for the New Infection Preventionist

Keeping 'emotional bank accts' out of red

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

I previously shared some thoughts on communication styles and keeping a log of questions — along with your answers — that come through your Infection Prevention & Control (IP&C) Program. *(See "Damage control: Getting communication right," Hospital Infection Control & Prevention, Feb. 2009.)*

The purpose is to help keep the continuity of your messaging clear, especially as a novice. Yet, there is more to this "IP&C Consultation Log" approach than simply documenting your conversations.

Have you discovered that you spend a lot of time dedicated to hallway conferences? Phone Calls? Literature reviews directly related to those hallway and phone question/answer sessions? Have you already (begrudgingly) determined that all this activity — albeit directly necessary for the success of your IP&C Program – is not reflected anywhere in traditional formal surveillance activities?

As an iPNewbie you may have already figured that much of your time is dedicated to securing abundant positive "deposits" into what author Stephen Covey calls "Emotional Bank Accounts," [1] effectively communicating with those who can physically intervene and stop infections at the bedside. These include:

- Bedside Staff — On-hands application of evidence-based practices
- Managerial Staff —Front line observations for compliance with feedback to staff

• Medical Staff — Compliance with regulatory/accreditation 'MD-driven' initiatives and programs

• Administrative Staff — Positions the house-wide 'Culture Attitude' toward patient safety and controls the budget requirements to promote IP&C compliance and resources

So how do these two invisible activities — Emotional Bank Account balances and non-outbreak investigative/surveillance IP&C work — get documented toward your overall productivity, i.e., get used in a formal way? One approach is to start linking formal documentation of your question/answer activities (consultations)[2] with components of the recommended practices for surveillance.[3] It is not a leap of faith to draw a parallel between keeping an IP&C Consultation Log with three of the seven recommended surveillance practices. Here's how:

• **Assessing the Population:** With each consultation you perform, internally or externally, related to your facility activities, you are doing just that — assessing the population with your fellow healthcare professionals or the general public. They have observed something questionable, or have noticed a new product is being piloted that you weren't aware of, or have an organism transmission prevention query. Each time you interact with your environment you are assessing the population.

• **Selecting the Outcome or Process for Surveillance:** Over time, as you keep your IP&C Consultation Log, trends may start to develop that may cause a mid-year and/or annual IP&C Program alteration. Is education needed based on a consistently-asked question? Are the IP&C resources not readily accessible based on perception or reality? Did one question lead to an entire process improvement change once you delved into it?

• **Collecting Surveillance Data:** Your IP&C Consultation Log is a 'living and breathing' reflection of the ongoing risk assessment of the environment you practice in. Make this function a formal report, at least annually, and include it as a process surveillance function in your IP&C program.

This approach enriches those Emotional Bank Accounts and shows others that you value their input enough to document their observations and alter practice as appropriate. Actions speak louder than words. The practice of documenting your

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

■ Joint Commission's major new HAI initiative

■ Hep C screening in dialysis — more the exemption than the rule?

■ APIC recharts the (strategic) 'vision thing'

■ CMS starts posting HAI rates and taking names

■ A disgusting solution to C. diff — how much worse could it be?

'Q&A sessions' facilitates mutual understanding by sharing expectations and decreasing the potential for miscommunications, keeping those delicate balances out of the red.

REFERENCES

1. Training-time.blogspot: http://bit.ly/zEI46V (Accessed Feb.20, 2012)

2. Grant P, Kim AT. Infection control consultation in a 150-bed acute care hospital: Making this unobserved and unmeasured critical job function visible. *Am J Infect Control* 2007;35:401-6.

3. Lee TB, Montgomery OG, Marx J, et al. Recommended practices for surveillance: Association for Professionals in Infection Control and Epidemiology (APIC), Inc. *Am J Infect Control* 2007;35:427-40. ■

CNE/CME Questions

1. According to Julie Morita, MD, co-chair of the NVAC subcommittee that created the flu immunization recommendations, the panel decided it was beyond its charge to specifically define a mandated policy for employee flu shots.
   A. true
   B. false

2. Prior to implementing a mandatory policy, NVAC recommended establishment of a comprehensive influenza infection control programs. What were some of the components cited for such programs?
   A. education and training about influenza and flu transmission
   B. respiratory hygiene protocols
   C. isolation of patients with acute respiratory infection
   D. all of the above

3. Arthur Caplan, PhD, professor of medical ethics and health policy at the University of Pennsylvania Center for Bioethics in Philadelphia, said health care workers can ethically refuse the shot if they:
   A. have philosophical objections
   B. seek informed consent from their patients
   C. have a valid medical reason
   D. all of the above

4. While many individuals in state HAI prevention collaboratives acknowledged that infection reporting alone does not change behavior, there was also a clear consensus that no facility wanted to be reported as having the "worst HAI numbers in the state."
   A. true
   B. false