

Hospital Infection Control & PREVENTION

The Trusted Source for the Infection Preventionist for More Than Four Decades

April 2014

Volume 41, No. 4

Pages 37-48

Joint Commission: ‘Intimidating and disrespectful’ behavior poisoning patient safety culture in health care

How many infections occur because no one spoke up?

By Gary Evans, Executive Editor



Erin Dupree, MD

Though it has been 15 years since the national patient safety movement began with the publication of *To Err is Human*,¹ toxic work cultures remain all too common in health care, discouraging innovation and change while bullying workers into silence about unsafe practices.

“I think it is pervasive throughout health care,” says **Erin Dupree, MD**, chief medical officer and vice president of the Joint Commission Center for Transforming Healthcare. “There needs to be the ability for frontline people to speak up when they see something wrong or unsafe — and for them to feel

safe speaking up. That’s not what we are seeing in health care right now. It is a culture that is very hierarchical and where the history has been that people are encouraged not to go against the grain or go against the hierarchy.”

This hierarchical culture has been the subject of both scholarly research and fiery opinion of late, with **Mark Chassin, MD**, the CEO of the Joint Commission, citing “nearly ubiquitous intimidating and disrespectful behaviors that suppress the identification and reporting of unsafe conditions.” In an article published in *Health Affairs* Chassin notes that “front-line caregivers — including nurses, pharmacists, physical therapists, housekeepers, and food service workers — report that physicians and non-physicians alike frequently refuse to answer questions or return phone calls, provide condescending or demeaning responses to questions, and deliver outright verbal abuse.”²

In This Issue

- ❑ **Toxic culture:** A toxic work place is a threat to patient safety because it undermines morale and inhibits cooperation cover
- ❑ **Tribal wars:** Improving patient safety cultures in health care requires involvement and action at the local level by leaders committed to replacing a “tribal” mentality with a shared vision 40
- ❑ **Nurse-to-nurse bullying:** Nurses appear to observe a hierarchy within their own ranks that may be just as mean spirited as physician-to-nurse relations 41
- ❑ **Rare bug leads to outbreak:** If not for several patients being hospitalized with highly unusual bacterial infections, an outbreak in an outpatient oncology clinic may have gone undetected. . . 42
- ❑ **Certain antibiotics trigger *C. diff*:** A compelling new incentive for antibiotic stewardship — preventing *C. diff* infections 43
- ❑ **Making perfect enemy of good?** APIC comments to CDC that ‘no recommendation’ on SSI practices provides little practical guidance and could affect patient safety 45
- ❑ **CDC gains allies for injection safety:** A government-private partnership is breathing new life into the One & Only Campaign, as Indianapolis-based Eli Lilly and Co. is working with the CDC to expand its injection safety program 46

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

Chassin could not be reached for additional comment as this issue went to press, but other published reports bear out his concerns. Researchers have identified categories of disrespectful behavior in health care that include the following:

- disruptive behavior
- humiliating, demeaning treatment of nurses, residents, and students
- passive-aggressive behavior and passive disrespect
- dismissive treatment of patients³

A threat to patient safety

Such behavior is a threat to patient safety because it undermines morale and inhibits cooperation essential to teamwork, the researchers warned. "Disrespectful behavior is rooted, in part, in characteristics of the individual, such as insecurity or aggressiveness, but it is also learned, tolerated, and reinforced in the hierarchical hospital culture," they found. "A major contributor to disrespectful behavior is the stressful health care environment, particularly the presence of 'production pressure,' such as the requirement to see a high volume of patients."

In creating a "culture of respect" the institution must develop effective methods for responding to disrespectful behavior while also initiating

the cultural changes needed to prevent it, they advise in a separate paper.⁴ "Central to an effective response is a code of conduct that establishes unequivocally the expectation that everyone is entitled to be treated with courtesy, honesty, respect, and dignity," the authors note.



Peter Pronovost,
MD, PhD

There has been some progress with collaborative approaches that allow health care workers to speak up if they see a breach in protocol that may endanger patients. One of the most notable examples is the checklist protocol to prevent central line associated bloodstream infections

(CLABSIs) designed by **Peter Pronovost**, MD, PhD, director of the Armstrong Institute for Patient Safety and Quality at Johns Hopkins. Pronovost has gone on to design a health care safety culture based on principles of humility and respect. (*See related story, p. 40*)

"One of the things we learned is that the stories that we tell ourselves either pin us to current performance or they compel us to new pinnacles,"

Hospital Infection Control & Prevention[®], including **Infection Control Consultant**[™] and **Healthcare Infection Prevention**[™] (ISSN 0098-180X), is published monthly by AHC Media, LLC, One Atlanta Plaza, 950 East Paces Ferry NE, Atlanta, GA 30326. Telephone: (404) 262-7436. Periodicals Postage Paid at Atlanta, GA 30304 and at additional mailing offices. Web: www.ahcmedia.com

POSTMASTER: Send address changes to **Hospital Infection Control & Prevention**[®], P.O. Box 550669, Atlanta, GA 30355.

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) 310-1754, (gary.evans@ahcmedia.com).

Production Editor: **Kristen Ramsey**.

Continuing Education and Editorial Director: **Lee Landenberger**.

Copyright © 2014 by AHC Media. **Hospital Infection Control & Prevention**[®] and **Infection Control Consultant**[™] are trademarks of AHC Media.

The trademarks **Hospital Infection Control & Prevention**[®] and **Infection Control Consultant**[™] are used herein under license. All rights reserved.



Editorial Questions

For questions or comments, call **Gary Evans** at (706) 310-1754.

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., **Print:** 1 year with free *AMA PRA Category 1 credits*[™] or Nursing Contact Hours (12 issues), \$499. Add \$19.99 for shipping & handling. **Online only, single user:** 1 year with free *AMA PRA Category 1 credits*[™] or Nursing Contact Hours, \$449. 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.)

Photocopying: No part of this newsletter may be reproduced in any form or incorporated into any information retrieval system without the written permission of the copyright owner. For reprint permission, please contact AHC Media. Address: P.O. Box 550669, Atlanta, GA 30355. Telephone: (800) 688-2421.

he says. "When we started our work the stories we were being told were 'harm is inevitable, you operate on people, they are going to get infections.' Then our work changed that to say, 'No, harm is preventable and I can do something about it.' We've seen that transition for CLABSIs. We still need to see it for other types of harms."

Dramatic reductions in CLABSIs resulted as other hospitals adapted versions of the checklist program, which is rooted in the concept that any member of the clinical team has the right to stop the procedure if a break in aseptic technique is observed.

"The concept that anyone can 'stop the line' is a change in health care that is still evolving and emerging," DuPree says. "It has to become widespread. I think there is more awareness of it now and in pockets, and there have been changes across the country, but that is not how health care runs right now."



Patti Grant
RN, BSN, MS, CIC,

Patti Grant, RN, BSN, MS, CIC, director of infection prevention and quality at Methodist Hospital for Surgery in Addison, TX, recalls a time in a different hospital when she tactfully stopped a physician from inserting a line. Grant called the physician away, saying she

had something to tell her about another patient.

"I told her she forgot to wash her hands and reglove. She looked at me and her eyes got huge and said, 'I just forgot,'" Grant says. "The thing that I learned from that is to discuss things like this out of earshot of the patient — you have to keep the confidence of the patient up. If one looks bad we all look bad. If you are professional and tactful it can be done. I tell that story every time I do general in-services about a culture of safety."

Even if someone complains to hospital administration, Grant says there should be no repercussions from management if you keep everything professional and tactful.

JC safety culture standard rarely cited

The Joint Commission has a leadership stan-

dard that says an "environment should exist for all staff to trust that they can openly discuss issues of safety and quality." However, the standard is rarely cited by surveyors. According to the Joint Commission, standard LD.03.01.01 was cited in only about 1% of more than 1400 hospitals surveyed in 2013.

"This has to be solved by local hospitals," Pronovost says. "This isn't something you are going to regulate your way out of."

By the same token, the CLABSI checklist is something that has to be embraced and modified by local clinicians to truly be successful, he says.

"It can't be done to them — it has to be done with them so they co-create it and have local ownership," Pronovost says. "You can't dictate this work. That is a really a key message that many in health care don't get. There are 1500 hundred hospitals in the U.S. using it and that means there are 1500 [different] checklists. They are 95% the same, but that 5% [difference] makes it work for them. If we tried to standardize it as one-checklist-fits-all it would destroy it."



Ruth Carrico,
PhD, RN, CIC

Infection preventionists can be key players in the creation of safe and just cultures, but it will require a skill set beyond the traditional job description, says **Ruth Carrico,** PhD, RN, CIC, assistant professor of health promotion and behavioral sci-

ences at the University of Louisville (KY).

"We are going to have to move into some areas of knowledge and practice that are out of our comfort zone — leadership, communication, team building, and behavior change — the so-called softer sciences," says Carrico, an IP for many years before going into academia. "I look at infection prevention as possibly being the ultimate example of inter-professional practice and education and communication. We cross all disciplines with all different types of personalities that are going to be involved in both the problem and the solution."

That said, it is still important to try and understand what is driving disrespectful behavior that

undermines patient safety cultures in health care.

"The challenge now is to get people to have a shared vision," she says. "Somebody may be passionate about something but it comes out as aggression. Try to figure out what this is really about and quit thinking it is all about you and your feelings. Seek to better understand what they are trying to tell you. And that's not an easy thing, many of us are used to making fast decisions and have everybody get with the program or get up on the porch and out of the way. But that is not how we are going to be able to solve complex issues."

Applying safety cultures from business and industry

The Joint Commission is trying to apply work cultures of successful businesses and industry to health care, where the public is still aghast to learn that health care workers don't even wash their hands for about half of their patient encounters.

In safety cultures in industry "workers all understand and act on their obligation to recognize and report unsafe conditions, inappropriate behaviors, and errors," Chassin notes in the article. "... In addition, workers in these organiza-

Overcoming tribal culture wars to improve patient safety

Through humility, respect, accountability

Improving patient safety cultures in health care requires involvement and action at the local level by leaders committed to replacing a "tribal" mentality with a shared vision of a health care team, says **Peter Pronovost**, MD, PhD, director of the Armstrong Institute for Patient Safety and Quality at Johns Hopkins Medicine in Baltimore.

"In too many places it's still an 'us versus them' mentality, whether it is doctors versus nurses or nurses versus administrators or doctor vs doctor, or the staff on the floor vs the staff in the ICU," he says. "We have these tribal cultures. What we have seen work is when leaders align everyone with a common purpose, create clear ways of behaving and then monitor and improve performance."

In working with clinical colleagues and system engineers at Hopkins, Pronovost came up with three overarching goals and the key characteristics needed to fulfill them.

"We spent a lot of time soul searching and what we came up with is to partner with patients, their loved ones and others to do three things in order of importance: eliminate preventable harm, continuously improve patient outcomes and experience, and eliminate waste," he says. "What do we need to drive toward those goals? We came up with three surprisingly simple behaviors."

Simple, but indeed surprising when contrasted with the high pressure traditional hierarchy seen in health care cultures. The core principles underlying the patient safety goals at the Armstrong

Center are:

- I act humbly.
- I respect and appreciate others.
- I am accountable to continuously improve myself, my team and my organization.

"What helped in our work to get the doctors and nurses to overcome these culture barriers or really battles, was aligning them to say that patient harm is unacceptable," he says. "What we learned in our CLABSI work was a small scale of what it takes to drive this culture change. But it is fundamentally about vision and values. If you get those right then you can cascade all these other things underneath it."

The values expressed in this idea of culture are not exactly what one would expect in health care, where humility has not been a defining feature.

"For us to say I will act humbly in an academic medical center — that was a shocker," Pronovost says. "That may not be what many people at academic medical centers have as their strong suit. But unless you are humble you can't learn and improve."

An expression of this humility is a willingness to visit other businesses and industries to see if aspects of their work culture could be applied to health care. Respecting and appreciating others includes recognizing co-workers for a job well done. "The point is that culture doesn't happen by chance," he says. "As Ritz Carlton says, the system is behind the smiles." ■

tions hold themselves accountable for consistently adhering to safety procedures. Imagine a protocol that is as essential to the safety of a nuclear power plant as hand hygiene is to preventing infections in hospitals — it is inconceivable that workers in the power plant would exhibit a compliance rate of only 40%.”

But is there something intrinsic to health care delivery that resists such models and compliance rates? For one thing, the frequent lack of compliance with a critical safety measure in a nuclear power plant is going to be apparent very quickly, Grant says.

“In health care there isn’t anything that visible,” she says. “It’s a longitudinal thing. We know if you are in a code blue situation and you push the wrong medication everybody knows right then and there — cause and effect — that the patient

will have a bad outcome. But if you are inserting a Foley, helping with a central line or you’re in a surgical procedure and there is a breach in the sterile field, the patient isn’t going to get septic within the next five seconds and die. They may still have a beautiful outcome with no problems or they may get sick in 48 hours or five days, seven days. You may not even know that you were the cause. It’s not an accountability issue, you just can’t see it.”

In concluding his aforementioned article, the Joint Commission’s Chassin states, “The critics are right. It’s not rocket science. It’s much more difficult ... Our health care quality challenge ultimately is to create something that doesn’t exist anywhere in the world today: hospitals and health systems in which preventable harm does not occur.”

Disrespectful behavior also occurs among nurses

A hierarchical order that ‘eats their young’

A common perception is that a lot of the toxic culture in health care is directed by physicians toward nurses. Surprisingly, nurses appear to observe a hierarchy within their own ranks that may be just as mean spirited, says **Elaine Larson**, PhD, RN, FAAN, CIC, associate dean for research at the Columbia School of Nursing in New York.

“A doctoral student who just graduated did her dissertation on bullying among nurses,” Larson says. “Actually, there is quite a body of literature on bullying within the profession of nursing, and it is rather common. What she found was that a majority of nurses at some time in their career have been harassed or bullied by a colleague in nursing. So I don’t think it is specifically just physicians to nurses.”

Patti Grant, RN, MSN, CIC, 2013 president of the Association for Professionals in Infection Control and Epidemiology, saw some of this first hand when she was just beginning her career. She was shocked to learn that a nursing assistant would not correct an RN even if witnessing a clear breach in protocol.

“That told me right there how much of a challenge I had in my own facility,” Grant says. “I think it is just the way that health care traditionally has been. It’s kind of paramilitary, but I don’t

think it’s horrific. I don’t think it should be used as an excuse. It’s a reality, but one that can be dealt with. I have had success addressing it.”

Factors contributing to such behavior include a high stress work environment where lives could literally be at stake.

“Also, the tradition in medical education has been much more confrontational,” Larson says. “There is such a high level of stress and rushing around that a sense of respect and mutual kindness [is lost].”

As a result, some health care cultures “eat their young,” to borrow a disturbing phrase from the aforementioned dissertation. “Some of the rude and aggressive behaviors probably have to do with self-protection,” Larson adds. “There are some people who have learned to move along the blame as much as possible and cover their backs.”

That said, the operating room is one of the environments in health care that accepts people speaking up and pointing out potential hazards. “If a surgeon comes into the OR without doing a hand prep or scrub everybody feels perfectly comfortable saying something,” she says. “The culture there has accepted that we are in this together; we’re a team and we have each other’s back. It’s not just blaming.” ■

The analogy is a good one, Carrico says, and underscores the difference between things that are complicated and things that are complex.

"Complicated is rocket science," she says. "We can put somebody on the moon and bring them home if we follow the same billion steps one at a time and then turn around and do it in reverse. Health care is different. Complicated is getting to the moon and back. Complex is like raising kids. No two kids are alike, the situations aren't the same, and yet you have to figure out with every step along the way all the challenges and the differences that occur and react and respond and think ahead. It is much more difficult than rocket science."

REFERENCES

1. Institute of Medicine Committee on Quality of Health Care in America. *To Err is Human: Building a Safer Health System*. Washington, DC: National Academy Press; 1999.
2. Chassin, M. Improving The Quality Of Health Care: What's Taking So Long? *Health Aff* 2013;32: 1761-1765
3. Leape, L, Shore, M, Dienstag, JL, et al. Culture of Medicine: Perspective: A Culture of Respect, Part 1: The Nature and Causes of Disrespectful Behavior by Physicians. *Academic Medicine* 2012;87:7:845-852
4. Leape, L, Shore, M, Dienstag, JL, et al. Perspective: A Culture of Respect, Part 2: Creating a Culture of Respect. *Academic Medicine* July 2012; 87:7: 853-858 ■

Outbreak of rare etiology leads to oncology clinic

Outpatient clinics the 'wild, wild West' of health care

If not for several patients being hospitalized with highly unusual bacterial infections, a recently reported outbreak in a West Virginia outpatient oncology clinic may have gone undetected, an investigator with the Centers for Disease Control and Prevention reports.

"The patients were getting care at an oncology clinic, but then some of them were admitted with infections at a nearby hospital and that's what brought this outbreak to light," says **Alice Guh, MD, MPH**, a medical officer in the CDC's Division of Healthcare Quality Promotion. "Had it been a more common organism I don't know how readily it would have been brought to the health department's attention."



**Alice Guh,
MD, MPH**

The bloodstream infections were caused by *Tsukamurella*, a gram-positive bacilli that has been found in soil and is rarely linked to human infections. Due to the unusual source of the outbreak, some treating clinicians initially regarded the

isolates as contaminants and delayed initiation of therapy for several case patients. Of the 15 patients infected, one died within 30 days after diagnosis of infection. Whether this death was attributable to the infection was unclear, Guh and fellow investigators concluded.¹

"Many of these patients ended of being admitted to a hospital, but an outpatient facility may not even be aware that something happened unless the hospital relays information back to the original provider," Guh says. "A disconnect in communication is part of the challenge in conducting surveillance for these outpatient infections. It's really a problem for a lot of different types of outpatient settings. Currently we don't have a system in place to conduct surveillance for outpatient infections."

That suggests other outbreaks and sporadic infections may be going undetected in outpatient clinics, where infection control practices typically lack the rigor of acute care hospitals.

Some outpatient facilities do have more oversight, such as ambulatory surgical centers that are certified by the Centers for Medicare and Medicaid Services (CMS), she says. However other types of clinics may have little scrutiny over their practices by either the CMS or state public health departments.

"We call it the wild, wild West of health care — not just for oncology but for other types of outpatient settings as well," Guh says.

Saline practices suspect

In the oncology outbreak, 15 immunocompromised patients developed bloodstream infections. All patients had received a diagnosis of malignancy and had indwelling central lines. A case-

control study determined that the only risk factor for developing infection was the receipt of saline flush, prepared by the clinic staff from large preservative-free bags of saline, Guh and colleagues found. Rather than using prepackaged, commercially manufactured saline flush syringes, the clinic staff drew 10-mL saline flush syringes at the beginning of each day from a new 250-mL bag of normal saline within the chemotherapy hood.

In addition, the investigators found several other lapses in infection control procedures relating to the care of long-term IV catheters and preparation and handling of both chemotherapy and non-chemotherapy medications. For example, opened single-dose medication vials were stored and reused over multiple days. Although syringes and needles were discarded after use on patients, occasionally staff drew and combined multiple medications using a single syringe and needle, which could cross-contaminate medication vials being used for other patients if aseptic technique was not strictly followed, the investigators noted.

"Our purpose was to focus on what was causing the outbreak, but in the course of investigating this clinic we identified several other lapses that were concerning," Guh says. "I think it highlights the concern that we have about the type of care that is being provided in these outpatient settings. In investigating some of these outbreaks we see that there are definitely concerning practices going on that probably are happening in other outpatient oncology settings as well."

Though there is no formal surveillance system that follows this population, over 600,000 oncology patients receive outpatient chemotherapy in the United States annually. They are at increased risk for bloodstream infections because of the use of immunosuppressive chemotherapy and the reliance on long-term invasive lines.

To help outpatient oncology facilities establish basic infection control strategies, the CDC has developed an infection control plan (<http://1.usa.gov/1gCqujX>) tailored to these clinics. The recommendations include the proper use and handling of injectable medications and correct procedures for assessing central lines. Outpatient oncology facilities without an existing infection control plan are encouraged by the CDC to use these resources as a starting point.

"There are some basic infection control practices that apply to any outpatient facility regardless of the type of patient they are caring for, but I think with cancer patients there are the couple of additional issues," Guh says. "One, they are

more frequently going to get some type of infusion because of the chemotherapy they're getting. Often they have an indwelling device requiring frequent saline infusion to keep the lines patent. So because they are more likely to have more frequent access of their lines it is that much more important for an outpatient cancer facility to make sure they have really good injection practices. And also because cancer patients have indwelling lines, facilities that care for these patients have to be sure that their staff understands how to properly access and maintain these lines."

REFERENCE

1. See I, Nguyen DB, Chatterjee S, et al. Outbreak of *Tsukamurella* spp. Bloodstream Infections among Patients of an Oncology Clinic—West Virginia, 2011–2012. *Infect Control and Hosp Epi* 2014;35:300-306. ■

Antibiotic stewardship as a weapon against *C. diff*

Certain drugs increase risk of C. diff infections

The critical importance of antibiotic stewardship has been emphasized to save the dwindling efficacy of antibiotics, stave off a post-antibiotic era, and cut costs due to unnecessary drug use in the first few years of such programs. A compelling new incentive is being brought into the discussion — using antibiotic stewardship programs to prevent *Clostridium difficile* infections (CDI).



Sara Cosgrove,
MD, MS, FSHEA, FIDSA

"The impact of antibiotic stewardship ideally is reducing antimicrobial resistance but also very importantly — and probably realized faster — would be a reduction in *C. diff* rates," says **Sara Cosgrove, MD, MS, FSHEA,**

FIDSA, director of the antimicrobial stewardship program and associate hospital epidemiologist at Johns Hopkins Hospital in Baltimore.

Indiscriminate antibiotic use can wipe out

commensal bacteria in the patient's gut, clearing the way for *C. diff* to proliferate. Overall, *C. diff* causes some 250,000 infections in hospitalized patients and 14,000 deaths every year among children and adults. Taking antibiotics is the most important risk factor for developing *C. diff* infections for both adults and children, the Centers for Disease Control and Prevention reported.

As part of a recent *Vital Signs* report, the CDC found that use of antibiotics that have a "high risk" of triggering *C. diff* led to a three-fold increase risk of hospital-onset and post-discharge CDI.^{1,2} The antibiotic classes considered to be high-risk were 3rd/4th generation cephalosporins, fluoroquinolones, and beta-lactam/beta-lactamase inhibitor combinations.

The CDC conducted a retrospective study of the relative risk of CDI in two large academic medical centers located in New York and Connecticut. The academic center in NY has approximately 700 beds and 40,000 discharges per year while the academic center in Connecticut has approximately 1,000 beds and 58,000 discharges per year. The risk of CDI among those exposed to the aforementioned high-risk antibiotics was three times higher compared to persons with low-risk or no antibiotic exposure, the CDC reported.

"Decreasing the use of antibiotics that most often lead to *C. difficile* infection by 30% (5% of overall antibiotic use) could lead to 26% fewer of these deadly diarrheal infections," the CDC concluded. "Reductions in CDI of this magnitude could also have additional positive effects in reducing transmission of *C. difficile* throughout the community."

In a separate CDC study, investigators reported that the majority of pediatric *C. diff* infections occurring among children in the community were in those who recently took antibiotics prescribed in doctor's offices for other conditions.³

The study showed that 71% of the cases of *C. diff* infection identified among children were community-associated and did not involve an overnight stay in a health care facility. Among the community-associated pediatric cases whose parents were interviewed, 73% were prescribed antibiotics during the 12 weeks prior to their illness, usually in an outpatient setting such as a doctor's office. Most of the children who received antibiotics were being treated for ear, sinus, or upper respiratory infections. Previous studies show that at least 50% of antibiotics prescribed in doctor's offices for children are for respiratory infections,

most of which do not require antibiotics, the CDC noted.

Other key findings in the CDC *Vital Signs* report include:

- Antibiotic prescribing practices vary widely and errors are common. About half of patients receive an antibiotic for at least one day during the course of an average hospital stay.
- The most common types of infections for which hospital clinicians wrote antibiotic prescriptions were lung infections (22%), urinary tract infections (14%), and suspected infections caused by drug-resistant *Staphylococcus* bacteria, such as MRSA (17%).
- About 1 out of 3 times, prescribing practices to treat urinary tract infections and prescriptions for the critical and common drug vancomycin included a potential error — given without proper testing or evaluation, or given for too long.
- Doctors in some hospitals prescribed up to 3 times as many antibiotics as doctors in similar areas of other hospitals. This difference suggests the need to improve prescribing practices.
- Patients getting powerful antibiotics that treat a broad range of infections are up to three times more likely to get another infection from an even more resistant pathogen.

Revisiting the role of the IP

In a 2012 paper, Cosgrove and co-authors argued that infection preventionists can be valuable team members of antibiotic stewardship programs.⁴

"Since a lot of antimicrobial stewardship has to do with asking physicians to change what they are doing, they must have a physician collaborator," Cosgrove says. "But IPs know a lot about what is going on in the hospital. They probably could tell you even without knowing the specifics which physicians are likely to be good antibiotic prescribers and which are likely to break all the rules. IPs are just kind of down in the trenches."

In addition, IPs are no longer viewed with the old stereotype of silo-based data collectors.

"In the stewardship world we have seen infection control make great strides and some of that is related to being a person who drives change and leads interventions — not the role 20 years ago of doing more surveillance," she says.

Some have argued that antibiotic stewardship will not be truly effective until it is a required by regulators like the Centers for Medicare and Medicaid Services (CMS).

"I think it just makes sense," Cosgrove says. "It's easy to pretend like you have a stewardship program by monitoring antibiotics used in your formulary. That's not a stewardship program. A stewardship program gets kind of down and dirty — talking to doctors about prescribing, asking if this antibiotic could be stopped, or could we replace this antibiotic with one less likely to [select out for] *C. diff*?"

A CMS requirement would also spur hospitals who see antibiotic stewardship as another budget item that exceeds current funding.

"Probably one of the main concerns right now is that this looks like an additional cost outlay for hospitals at a time of financial difficulty in health care," she says. "But in a smaller hospital if you have an IP that is interested — and you can get hospital administration to kick in a little bit of salary time for a physician and a pharmacist — that is really a pretty minimal outlay for something you would expect to have a pretty significant impact."

For example, an additional cost-savings in cutting back use of unnecessary antibiotics may cover the initial program costs and possibly much more. The CDC reported that published studies from mostly larger settings have shown cost savings in the \$200,000–\$900,000 range.

"We always try to stay away from talk of costs as the main reason for stewardship, but the truth is if you improve your antimicrobial prescribing you will save on antibiotic costs," Cosgrove says. "The minimal outlay in salary support to have people focus on this is generally offset by just the drug costs alone — not even to mention the additional benefits to the patients."

The cost savings won't be ongoing, of course, settling to a mean level that should represent appropriate antibiotic use.

"The goal of stewardship is not to stop all antibiotic use, but you should have some savings relative to the period you began the program," she says.

REFERENCES

1. Centers for Disease Control and Prevention. Vital Signs Technical Appendix: Estimating the Potential Reductions in *Clostridium difficile* Infection (CDI) among Patients when Antibiotic Use is Improved. 2014: <http://1.usa.gov/1e9qUNZ>
2. CDC. Vital Signs: Improving Antibiotic Use Among Hospitalized Patients. *MMWR* 2014; 63(09);194-200
3. Wendt JM, Cohen JA, Mu Y, et al. *Clostridium difficile* Infection Among Children Across Diverse US

Geographic Locations. *Pediatrics*; originally published online March 3, 2014: <http://bit.ly/1fGL3XX>

4. Moody J, Cosgrove SE, Olmsted R, et al. Anti-microbial stewardship: A collaborative partnership between infection preventionists and healthcare epidemiologists. *AJIC* 2012; 40: 94-95 ■

New SSI guidelines: Making perfect the enemy of good?

APIC: Lack of guidance could affect pt safety

The Centers for Disease Control and Prevention has updated guidelines for preventing surgical site infections, focusing on some difficult issues in an exhaustive and largely futile attempt to find conclusive data on various practices. As a result, "no recommendation" is a recurrent theme in the document, which was the work of the CDC's Healthcare Infection Control Practices Advisory Committee (HICPAC).

While that may be a completely accurate reflection of the dearth of data on many infection control issues, as a practical matter it leaves the infection preventionist with little to work with in trying to improve patient safety.

In comments submitted to the CDC, the Association for Professionals in Infection Control and Epidemiology (APIC) made similar points and requested a "plan of action" to provide practical guidance over a wider range of infection control issues.

"Our main concern is that the methodology used to create the document has resulted in significantly fewer practice recommendations than were in the 1999 SSI Guidelines," APIC stated. "... Although we understand the importance of scientific rigor and the need to develop a springboard for future research needs, we are faced with the concern that the application of these guidelines by healthcare professionals has the potential to lead to great confusion on topics for which there are limited or absent recommendations."

Another concern is the body of evidence that was excluded from the document due to an exclusive reliance on systematic reviews and randomized controlled trials, APIC noted.

"This approach does not provide practical guidance to healthcare providers at the bedside, which may then result in lack of standardization and regression to less safe practices and, potentially, in poor outcomes for patients," APIC

warned. "... Due to limitations in scope, we fear that many professionals will misunderstand the statement 'No recommendations' and revert back to traditional or unstudied practices."

In addition, APIC questioned the inclusion of clinical practice guidelines from various surgical societies and specialties as a supplement to the guidelines. "[T]he information has the potential to confuse readers as many sections are now in conflict with recommendations made in this document. If this section is to be included, reasoning as to the differences, i.e. the differing review methodologies and influence of regulatory and governing bodies on evidence building, needs to be included." ■

Eli Lilly joins CDC safe injection campaign

Some providers need injection safety 101'

A government-private partnership is breathing new life into the One & Only Campaign, as Indianapolis-based Eli Lilly and Co. is working with the Centers for Disease Control and Prevention to expand its injection safety program.

The company is providing funding and staff as part of the Safe Injection Practices Coalition (SIPC), a partnership of healthcare-related organizations, patient advocacy organizations, industry partners, and the CDC and other public health partners.

Since 2001, the CDC has conducted some 50 investigations into viral hepatitis and bacterial outbreaks associated with unsafe injection practices. Overall, more than 150,000 patients have been notified that they might have been exposed to hepatitis and HIV due to unsafe injection practices, says **Joseph Perz**, DrPH, a health care epidemiologist and team leader in the prevention and response branch at the CDC's division of healthcare quality promotion.

As part of the new partnership, SIPC will create tools for physician training as well as safe injection messages for YouTube and other social media, Perz says.

"We've spent the last four or five years building a good foundation in terms of useful and impactful materials, including print materials, brochures, posters, and — most importantly —

a strong presence on the web," Perz adds. "We hope to increase the outreach and presence we have on social media."

The new partnership is something the coalition's other partners welcome, says **Lynn Reede**, CRNA, DNP, MBA, senior director, professional practice at the American Association of Nurse Anesthetists in Park Ridge, IL. The AANA is one of 14 organizations supporting the campaign.

"Sequestration was challenging for the CDC as resources were limited," Reede says. "So finding an industry partner who can support this very important effort is of great value."

From Lilly's perspective, the partnership gives its scientists and experts the opportunity to work with the most respected source of authority on safe injection practices, says **Jeff Prewett**, senior hospital accounts manager with Lilly USA.

"In addition, the CDC gains a valuable partner within the healthcare community to promote and create awareness around safe injection practices," he says.

The next phase of the campaign will focus on educating providers about safe injection practices and underscoring their personal responsibility to follow them, Perz says.

"A lot of what we talk about is infection control and injection practice 101," he says.

Indeed, the flagrant disregard of basic aseptic practices has been a recurrent theme throughout the outbreaks, suggesting the need for a back to the basics approach.

The CDC will also increase public awareness that safe injection practices cannot be taken for granted. With the three-year partnership with Lilly, the CDC will expand the One & Only Campaign in these ways:

- Spread the message to individual and group-owned physician practices;
- Offer health care providers new and enhanced training and communication materials, including electronic continuing medical education, to address new safety issues;
- Reaching new audiences by improving the SIPC website and social media platforms and sharing resource toolkits; and
- Obtaining more support from new and existing SIPC partners.

U.S. not immune to Third World problems

The CDC first became interested in this

issue when supporting the World Health Organization's Safe Injection Global Network, Perz notes.

"Those needs are as great as ever," he says. "What we've learned in the last 10 years is that the U.S. is not immune to this problem, and some of the factors that might lead to things like reusing a syringe in the developing world can happen here as health care providers face similar pressures to cut corners."

One example is the 2008 Las Vegas outbreak in two endoscopy clinics, where providers reused syringes and vials to save pennies per patient, Perz says.

"In recent years there have been issues that result in short supplies of medications," he adds.

The drug shortages led to some unsafe practices, such as providers using single-dose medications for multiple patients to stretch their supplies, Reede explains.

One example is propofol, an intravenously administered anesthetic agent. When a chief manufacturer stopped making the drug in 2010, severe shortages followed. Some health care providers were tempted to double dip from the vials, but this is an inherently unsafe practice unless done in optimal conditions.

"Pharmacies have sterile rooms where they are able to safely compound or repackage medicines," Reede says. "Single dose vials, purchased syringes and repackaging — though more expensive — are important for safe injection practices."

The One & Only Campaign will continue to educate providers that they cannot cut corners, Perz emphasizes.

"There are safe ways to stretch supply, and there are unsafe ways to stretch supply," Perz says. "Protecting patients from bloodborne pathogens is a basic responsibility for anyone providing healthcare in the U.S. and worldwide." ■

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. Scan the QR code below or 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 emailed 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

■ New guidance on preventing infections linked to endoscopes

■ CMS hospital infection control survey

■ Joint Commission partners with S.C. hospitals to improve patient safety

■ Special coverage APIC 2014 in Anaheim

CNE/CME Questions

1. Researchers have identified categories of disrespectful behavior in health care that include which of the following:
 - A. humiliating, demeaning treatment of nurses, residents, and students
 - B. passive-aggressive behavior and passive disrespect
 - C. dismissive treatment of patients
 - D. all of the above
2. According to **Elaine Larson**, PhD, RN, FAAN, CIC, bullying and disrespectful behavior are rarely reported among nurses.
 - A. True
 - B. False
3. In an outbreak in an oncology break, a case-control study determined that the only risk factor for developing infection was:
 - A. receiving care from nurse A
 - B. the receipt of saline flush prepared by the clinic staff
 - C. reusing single dose vials on more than one patient
 - D. injection of anesthetic drawn from a multi-dose vial
4. Which of the following antibiotics were considered "high risk" for triggering *C. diff* infections?
 - A. 3rd/4th generation cephalosporins,
 - B. fluoroquinolones,
 - C. beta-lactam/beta-lactamase inhibitor combinations
 - D. all of the above

EDITORIAL ADVISORY BOARD

Consulting Editor:

Patrick Joseph, MD

Chief of Epidemiology

San Ramon (CA) Regional Medical Center and
President, California Infection Control Consultants
San Ramon

Kay Ball,

PhD, RN, CNOR, FAAN
Associate Professor, Nursing
Otterbein University
Westerville, OH

William Schaffner, MD

Chairman
Department of
Preventive Medicine
Vanderbilt University
School of Medicine
Nashville, TN

Ruth Carrico, PhD, RN, FSHEA, CIC

Associate Professor
Division of Infectious Diseases
School of Medicine
University of Louisville

Connie Steed, MSN, RN, CIC

Director, Infection Prevention
Greenville Health System
Greenville, SC

Patti Grant,

RN, BSN, MS, CIC
Director: Infection Prevention/
Quality
Methodist Hospital for Surgery
Addison, TX

Katherine West,

BSN, MSED, CIC
Infection Control Consultant
Infection Control/
Emerging Concepts
Manassas, VA

Allison McGeer, MD,

Professor, Dalla Lana School
of Public Health, University of
Toronto
Director, Infection Control and
Microbiologist, Mount Sinai
Hospital, Toronto

To reproduce any part of this newsletter for promotional purposes, please contact:

Stephen Vance

Phone: (800) 688-2421, ext. 5511
Fax: (800) 284-3291
Email: stephen.vance@ahcmedia.com

To obtain information and pricing on group discounts, multiple copies, site-licenses, or electronic distribution please contact:

Tria Kreutzer

Phone: (800) 688-2421, ext. 5482
Fax: (800) 284-3291
Email: tria.kreutzer@ahcmedia.com
Address: AHC Media, LLC
One Atlanta Plaza
950 East Paces Ferry NE, Suite 2850
Atlanta, GA 30326 USA

To reproduce any part of AHC newsletters for educational purposes, please contact:

The Copyright Clearance Center for permission

Email: info@copyright.com
Website: www.copyright.com
Phone: (978) 750-8400
Fax: (978) 646-8600
Address: Copyright Clearance Center
222 Rosewood Drive, Danvers, MA 01923 USA