

Hospital Patient Safety News

Winter 2013

A Newsletter for Hospital Staff Participating in IPRO's Patient Safety Initiative

www.ipro.org



Welcome to the Winter 2013 issue of IPRO's *Hospital Patient Safety News*. This newsletter features information on upcoming events, articles of interest, and educational resources related to the Centers for Medicare & Medicaid Services (CMS) Healthcare Associated Infections (HAI) Prevention Initiative. If you have a best practice, tool, or resource that you would like us to feature in a future issue, please

forward the information to Teré Dickson, MD, MPH at tdickson@nyqio.sdps.org. Subscriptions to this newsletter can be requested by e-mail to Susan Ulmer at sulmer@nyqio.sdps.org.

Your comments are valuable for improving our newsletter. Please share your input with us in this brief questionnaire: www.surveymonkey.com/s/YL2RZZG.

News You Can Use

C. difficile Therapy Options and Objectives

September 2012. *Healio Infectious Disease News* points out that *Clostridium difficile* infection (CDI) rates have tripled in the last fifteen years and continue to rise. Author, Dr. Herbert L. DuPont, cites four reasons for this dramatic rise: 1) an increasing number of elderly patients susceptible to CDI, 2) ineffective hospital room cleaning methods, 3) improved laboratory detection methods, and 4) inadequate treatment of CDI patients, resulting in further contamination of hospital environments. Dr. DuPont's review of current therapies for CDI states that most infectious disease specialists use metronidazole to treat mild to moderate CDI; reserving oral vancomycin for severe cases. Fidaxomicin is a newly licensed medication that has similar cure rates as oral vancomycin. The focused objectives of successful CDI treatment includes the concentration of the drug within the colon, reduction of *Clostridium difficile* (*C. diff*) vegetative cells and spores within the intestine, maintenance and re-growth of healthy colonic microflora, and development of antibodies against *C. diff* toxins. Dr. DuPont encourages further research to enhance currently available tools in order to advance successful clinical therapies against this emergent threat. To view the therapy objectives in depth, visit: www.healio.com/infectious-disease/gastrointestinal-infections/news/print/infectious-disease-news/%7BFD7FF251-BECA-467F-8D3C-DCA4DB5DC78D%7D/C-difficile-Microbial-emergency-across-US-hospitals-without-effective-therapy. For current treatment guidelines, determined by the joint expert panel appointed by the Society for Healthcare Epidemiology of America (SHEA) and the Infectious Diseases Society of America (IDSA), visit: www.idsociety.org/Organism.



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Quality Improvement Organizations

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News You Can Use

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Three Steps to Antibiotic Stewardship

November 2010. *The Centers for Disease Control and Prevention (CDC) Expert Video Commentary Series on Medscape* features guidelines on ways to improve antibiotic use in hospitals. Dr. Arjun Srinivasan describes three ways to control the overuse of antibiotics in order to reduce the incidence of *Clostridium difficile* infections, improve infection cure rates, and limit the development of antibiotic resistance. Implementing an antibiotic stewardship program can be a daunting task for many clinicians, but Dr. Srinivasan points out that these three steps can simplify the task: 1) require dose, duration, and indication for all antibiotic orders; 2) include orders for cultures with every antibiotic order to ensure discontinuation of broad spectrum treatments; and 3) take an antibiotic time-out when culture results are available in 24–48 hours. The antibiotic time-out allows the clinician to reassess the patient's condition and determine whether or not antibiotics are still necessary. If antibiotics continue to be a necessary part of the patient's treatment, the choice of antibiotic should be based on available microbiology, radiographic and clinical information. If you would like to view the video, visit: www.medscape.com/viewarticle/731784. For more information on available CDC tools and recommendations for Antimicrobial Stewardship Programs, visit *CDC Get Smart for Healthcare* at: www.cdc.gov/getsmart/specific-groups/hcp/index.html.

Hospitals Demonstrate Commitment to Quality Improvement

October 2012. An article in The American Hospital Association's *TrendWatch* newsletter outlines five steps that are generally taken to improve infection prevention practices in healthcare facilities: 1) identify target areas for improvement, 2) determine what processes can be modified to improve outcomes, 3) develop and execute effective strategies to improve quality, 4) track performance and outcomes, and 5) disseminate results to spur broad quality improvement. Quality improvement programs such as Lean, Six Sigma, and Plan-Do-Study-Act, are used in some facilities in order to reduce the morbidity and mortality rates and improve patient care. According to the latest data provided by the Centers for Disease Control and Prevention (CDC), hospital quality improvement initiatives have resulted in a reduction of CLABSIs in ICUs across the United States by as much as 58 percent. Catheter associated urinary tract infections (CAUTIs) and surgical site infections (SSIs) have also dramatically decreased by as much as six to eight percent. It is estimated that from 2001 to 2009 ICUs nationwide saved as much as \$414 million in potential healthcare costs as a result of implementing effective quality improvement efforts. For the complete article, click: www.aha.org/research/reports/tw/12oct-tw-quality.pdf.

CAUTI Prevention Policy Less Likely at Large Hospitals



October 2012. *Nurse.com News* highlights study findings published in the *American Journal of Infection Control*. Researchers discovered that hospitals with 500 or more beds had a 1.5 times higher average rate of catheter-associated urinary tract infections (CAUTI) than did smaller hospitals. The study

also reveals that intensive care units (ICUs) in larger hospitals were half as likely to have a CAUTI prevention policy in place. In a survey of 415 ICUs in 250 large hospitals, 26% had policies supporting bladder ultrasound, 20% had policies supporting condom catheters, 12% had policies supporting catheter removal reminders and 10% had policies supporting nurse-initiated catheter discontinuation. Hospitals with effective lines of communication in place between the ICU infection control director and hospital administrators were twice as likely to have a CAUTI prevention policy implemented. For the complete article and link to the study abstract, click: <http://news.nurse.com/article/20121023/NATIONAL02/110290019>.

New York State Hospitals Reduce Rates of Infection

November 2012. New York State Department of Health (NYSDOH) press release announces a decrease in surgical site infections (SSI) and central-line associated blood stream infections (CLABSI) with an increase in *Clostridium difficile* infections (CDI) in New York hospitals. Their fifth annual report on hospital acquired infections (HAI) revealed a 41% decrease in adult/pediatric/neonatal CLABSIs between 2007 and 2011 and a 13% reduction in SSIs related to colon, cardiac bypass, and hip replacement/revision surgeries. Meanwhile, CDIs rose by 3% over a two year period and may be attributable to the adoption of more sensitive laboratory testing. For the full NYSDOH HAI report, including hospital-specific results, go to: www.health.ny.gov/statistics/facilities/hospital/hospital_acquired_infections. The press release is available on their website at www.health.ny.gov/press/releases/2012/2012-11-29_hospitals_reducing_infection_rates.htm.



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CUSP Corner

The Comprehensive Unit-based Safety Program (CUSP) offers a variety of tools and techniques to help clinical teams identify and resolve patient safety issues at the unit level. The five-step program features a structured, strategic framework for safety improvement that also empowers staff to take charge and address identified safety hazards. To learn more about CUSP visit: www.onthecuspstophai.org.

Breaking Old Habits to Prevent HAIs

October 2012. On the CDC's *Safe Healthcare Blog*, Dr. Jan Patterson, President of SHEA, notes that without addressing behavior change and working to implement a culture of safety, recommended core infection control practices alone are not effective in eliminating healthcare-associated infections (HAIs). Dr. Patterson recommends that healthcare management leadership pay close attention to feedback provided by the entire healthcare team, commit to adopting standard quality improvement tools and measures, and promote successful models of care. SHEA recommends five prevention strategies that should be applied to all infection prevention practices: 1) hand hygiene compliance, 2) implementation of appropriate isolation precautions for patients with hazardous and drug-resistant organisms, 3) adequate environmental and equipment cleaning practices, 4) prompt removal of unnecessary catheters and devices, and 5) professional and patient targeted education on HAI prevention. To access the blog or provide a public comment, go to: <http://blogs.cdc.gov/safehealthcare/?p=2551>.



communicating with physicians is the difficulty reaching the responsible doctor and receiving callbacks during emergency situations. The author suggests possible strategies to improve effective communication between nurses and physicians: 1) using TeamSTEPPS concepts 2) implementing a patient- and safety-focused organizational culture, and 3) creating interdisciplinary patient care teams with designated team managers. The article mentions that these tools are crucial in addressing the communication gaps between nurses and physicians that can ultimately lead to patient harm. For access to the complete article, click: <http://viewer.zmags.com/publication/0ba7ab6d#0ba7ab6d/1>.



Nurse-to-Physician Communications: Connecting for Safety

September 2012. *Patient Safety and Quality Healthcare* provides a detailed look into ineffective communication among healthcare providers, which can lead to an increased risk of adverse patient outcomes. In a recent study conducted in 13 ICUs across the United States, researchers found that patients who were cared for by less collaborative nurses and physicians had a higher mortality rate than those with providers who were more collaborative. 375 nurses working in a Connecticut long-term care facility reported that their main obstacle in

Teamwork Effectiveness-Assessment Module

November 2012. *HealthAffairs* published an announcement on the American Board of Internal Medicine's (ABIM) release of the Teamwork Effectiveness Assessment Module (TEAM). TEAM is a tool for hospitalists to assess their performance in collaborating with multidisciplinary healthcare professionals. The guided assessment requires input from other members of the healthcare team in order to create an improvement plan focused on enhancing working relationships with colleagues. ABIM views interprofessional teamwork as an important physician competency for physician certification boards. ABIM provides registration and additional information on TEAM at: <https://team.abim.org>. To view the abstract, go to: <http://content.healthaffairs.org/content/31/11/2485.abstract?ct>.

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Five Steps of CUSP

1. Educate staff on the Science of Safety
2. Identify defects in the system
3. Assign an executive to adopt unit
4. Learn from one defect per specified time period
5. Implement teamwork tools

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Patient Corner

From the Other Side of the Bed: Looking at Healthcare-Associated Infections

September 2012. *Prevention Strategist* reports the personal experience of Infection Preventionist Brenda Helms, whose husband, Rick Helms, contracted a methicillin-resistant *Staphylococcus aureus* (MRSA) catheter-associated urinary tract infection (CAUTI) and a surgical site infection (SSI) after hip replacement, knee and ankle surgeries. In 2007, he had surgery on his knee and ankle and was treated seven times with antibiotics in 2008 for cellulitis of his knee and fever of unknown origin. That same year, Mr. Helms had his hip replacement surgery and subsequently developed a MRSA CAUTI. As a result of this infection, he was prescribed vancomycin and cephalexin. After taking the antibiotics for a

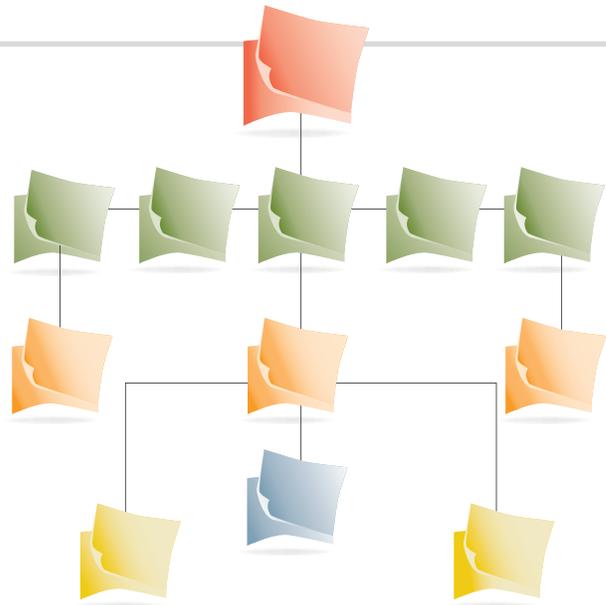


few days his symptoms seemed to dissipate, but over the next few weeks, his health began to slowly decline. His physician discovered that Mr. Helms had developed a hematoma in his hip, which required drainage. He also began to exhibit signs and symptoms of neuralgia in his foot. Mr. Helms' primary care physician and his surgeon provided conflicting instructions regarding the duration of his antibiotics; this resulted in numerous ED visits as well as continuous and unnecessary antibiotic usage. The cost of Mr. Helms' HAI has totaled over \$30,000 in medical expenses with ongoing medication expenses of \$250/month and loss of quality of life for the entire family. Due to his numerous infections, he now suffers from permanent nerve damage. Before becoming permanently disabled from complications related to his surgery, Mr. Helms was a successful business owner and avid outdoorsman. To read the complete article, please visit: <http://blogs.cdc.gov/safehealthcare/?p=2503>.

Small Steps to Success

Adopting Best Nursing Practices

October 2012. *Advance for Nurses* reports the success of two facilities using practices that encourage nurses to continuously ask questions to assess workflow problems then applying those answers to develop a process improvement. This approach includes nursing workflow research and the use of flowcharts and root cause analysis (RCA). In 2011, Joint Commission reported that more than 400 hospitals used this approach, which resulted in improved patient outcomes. Due to the recent changes in nursing practice, nurses are responsible for sicker patients, leaving less time to evaluate which paradigm of care is best for their patients. "Flowcharting quantifies what care is provided, how long it takes, what it costs and whether patients and staff are satisfied with it," said Dr. Doris Quinn, Director of Process Improvement and Quality Education at the University of Houston. In 2008 at Vanderbilt Hospital, mapping the flowchart process resolved an issue with treating psychiatric patients in the emergency department (ED). Hospital staff conducted a RCA using the flowchart method in order to examine ED processes and procedures followed by nurses. This resulted in the creation



of a safe room, as well as the addition of a psychiatric nurse in the ED. Read more: <http://nursing.advanceweb.com/Features/Articles/Adopting-Best-Nursing-Practices.aspx>.

Hospital Patient Safety News welcomes stories from our readers. If you have a success story you would like to share in our newsletter, please contact Teré Dickson, MD, MPH at tdickson@nyqio.sdps.org.

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SPECIAL ARTICLE

Ensuring Patient Safety During Hurricane Sandy



The members of IPRO's HAI Team extend their heartfelt sympathies to those who suffered personal loss and damages during Hurricane Sandy and the subsequent snowstorm. We commend all the first-line responders, essential hospital staff, and medical volunteers who helped keep New Yorkers safe during this crisis.

November 2012. A *New York Times* article provides a glimpse into the impact of Sandy on numerous hospitals in the tri-state area. Located in lower Manhattan, Bellevue Hospital suffered severe flooding and damage to the elevator shafts and basement of their facility where the essential backup generators were housed. Hospital staff rushed to evacuate patients to nearby facilities for treatment once the backup generators began to fail. Bellevue was the third hospital in the area to evacuate after the storm hit. New York University (NYU) Langone Hospital Center and Coney Island Hospital were also forced to evacuate. The Veterans Affairs hospital, located south of Bellevue, and the New York Downtown Hospital evacuated before the storm. Nearby hospitals including Maimonides Medical Center in Brooklyn and Mount Sinai Medical Center in Manhattan struggled to keep up with the influx of patients, especially those requiring dialysis, psychiatric care, and language interpretation services. All accredited hospitals are required to develop and maintain disaster planning and perform drills. Sandy tested those plans, and many hospitals, especially those in the low-lying areas of the city, are looking to reassess and revise their protocols. For the full article, see: www.nytimes.com/2012/11/02/nyregion/at-bellevue-adesperate-fight-to-ensure-the-patients-safety.html?ref=opinion&_r=0. Although they were not discussed in this article, we would like to acknowledge the efforts of Beth Israel Medical Center, Manhattan (BIMC). Once NYU Langone and Bellevue evacuated, BIMC remained the only major operational hospital in lower Manhattan. Staff pulled together to serve the surge of dialysis

patients, patients who depended upon electricity for their life-sustaining equipment, and other patients impacted by the loss of power and closure of their safety hospitals and healthcare centers. New England Journal of Medicine relays an account of BIMCs experience on their website with free access here: www.nejm.org/doi/full/10.1056/NEJMp1213844.

Hospital Preparedness Program

November 2012. The US Department of Health and Human Services, Hospital Preparedness Program (HPP) provides funding and grant opportunities to healthcare systems, in order to strengthen public health emergency preparedness through: 1) enhanced planning, 2) increased integration and 3) improved infrastructure. This program is managed by the Office of the Assistant Secretary for Preparedness and Response (ASPR). The ASPR contracted The University of Pittsburgh Medical Center (UPMC) to study recommendations for improving emergency preparedness in U.S. hospitals. Researchers found that the current HPP program has enhanced the pliability of hospitals and communities across the United States in responding to medical disasters. The Department of Health and Human Services has granted more than \$971 million in funding to healthcare agencies and hospitals across the United States, in order to improve health preparedness for a vast range of potential public health emergencies. For additional information on funding opportunities for public health disasters, as well as an overview of the Hospital Preparedness Program, visit: www.phe.gov/preparedness/pages/default.aspx.

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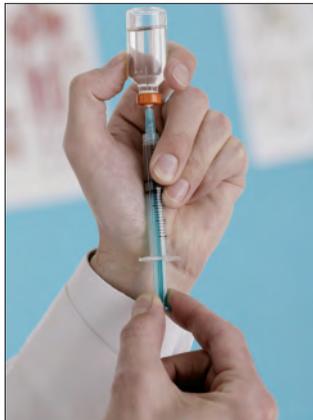
Healthcare-Associated Infections and Patient Safety Research

Etchegaray, J.M., and Thomas, E.J. (2012). “Comparing two safety culture surveys: Safety Attitudes Questionnaire and Hospital Survey on Patient Safety.” (AHRQ grant HS17145). *BMJ Quality and Safety* 21, pp. 490-498.

This study found that two patient safety culture surveys, the Safety Attitudes Questionnaire and the Hospital Survey on Patient Safety, when administered to the same participants, had similar reliability and predictive validity. The study is the first to directly compare the ability of these two surveys to predict self-reported safety outcomes.

Ward, M.M., Clabaugh G., Evans, T.C., and Herwaldt, L. (2011). “A successful, voluntary, multicomponent statewide effort to reduce healthcare-associated infections.” (AHRQ Contract No. 290-06-000021). *American Journal of Medical Quality* 27(1), pp. 67-73.

The authors describe a statewide multicomponent approach, implemented in Iowa, to reducing healthcare-associated infections. The Iowa Healthcare Collaborative (IHC) was successful in developing a reporting system involving all Iowa hospitals in the 5 Million Lives Campaign, and significantly improving the rate of influenza immunization among healthcare workers. IHC’s approach to healthcare improvement is a model for other states.



Clancy, C.M. (2012). “Progress on a national patient safety imperative to eliminate CLABSI.” *American Journal of Medical Quality* 27(2), pp. 170-171. Reprints (AHRQ Publication No. 12-R068) are available from the AHRQ Publications Clearinghouse.

The author, director of the Agency for Healthcare Research and Quality, discusses a program to eliminate central line-associated bloodstream infections (CLABSIs). The Comprehensive Unit-based Safety Program, originally started in Michigan intensive care units (ICUs), was extended to hospitals in ten states. It has since been expanded to hospitals nationwide, and to settings other than ICUs. Other types of healthcare-associated infections, besides CLABSIs, are also included. Reports thus far have found considerable success in the reduction of infections.

Elbardissi, A.W., and Sundt, T.M. (2012). “Human factors and operating room safety.” (AHRQ grant HS19190). *Surgical Clinics of North America* 92, pp. 21-35.

This article reviews previous research on the impact of work system factors on surgical care. Specifically, the discussion highlights research pertaining to the following components of surgical care:



(1) the physical operating room environment, (2) teamwork and communication, (3) tools and technology, (4) tasks and workload, and (5) organizational processes.

Pakyz, A., Carroll, N.V., Harpe, S.E., and others (2011). “Economic impact of *Clostridium difficile* infection in a multihospital cohort of academic health centers.” (AHRQ grant HS18578). *Pharmacotherapy* 31(6), pp. 546-551.

Patients with healthcare-associated *Clostridium difficile* infections (CDIs) have an adjusted mean cost of hospital care, nearly double that for matched patients without CDI (\$55,769 vs. \$28,609), found this study of administrative data. The researchers also found in their case-control study that the adjusted mean length of hospital stay was more than twice as long (21.1 days) for patients with healthcare-associated CDI than for those without the infection (10.0 days).



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<http://hai.ipro.org>

IPRO's online portal to information and resources on HAI prevention

- Tools and articles by infection prevention and patient safety experts,
- Information on dates and times for upcoming webinars,
- Recorded webinars, and presentations,
- Patient education materials,
- and more.

Visit us today.

Upcoming Events

IPRO HAI Webinars www.ipro.org/index/hai-hplinks

Monday, January 7 • 1:00 PM EST: **Effective Environmental Control Strategies for *C. Difficile***

Monday, February 25 • 1:00 PM EST: **Antimicrobial Stewardship**

On the CUSP Webinars www.onthecuspstophai.org/on-the-cuspstop-cauti/educational-sessions

Tuesday, January 15 • 12:00 PM EST: **Improving the Appropriateness of Diagnosis and Treatment of Catheter-associated Urinary Tract Infection**

Tuesday, February 12 • 12:00 PM EST: **Role of the Nurse Manager/ Unit Team Lead—How to Engage Others**

Tuesday, March 12 • 12:00 PM EST: **Coaching 101—The Basics of Coaching and How to Derive Meaning from Your Data**

Tuesday, April 9 • 12:00 PM EST: **Patient and Family Engagement**

Conferences & Training Sessions

Beginning January 22 **Leading Quality Improvement: Essentials for Managers**

(Available online for six-month program): Institute for Healthcare Improvement (IHI)
www.ihi.org/offerings/Training/LeadingQualityImprovement/LeadingQualityImprovementJanuary2013/Pages/default.aspx

May 1–4: **SHEA Spring 2013 Conference: Advancing Healthcare Epidemiology and the Role of the Environment**
Society for Healthcare Epidemiology of America (SHEA)
Atlanta, GA
<http://shea2013.org>

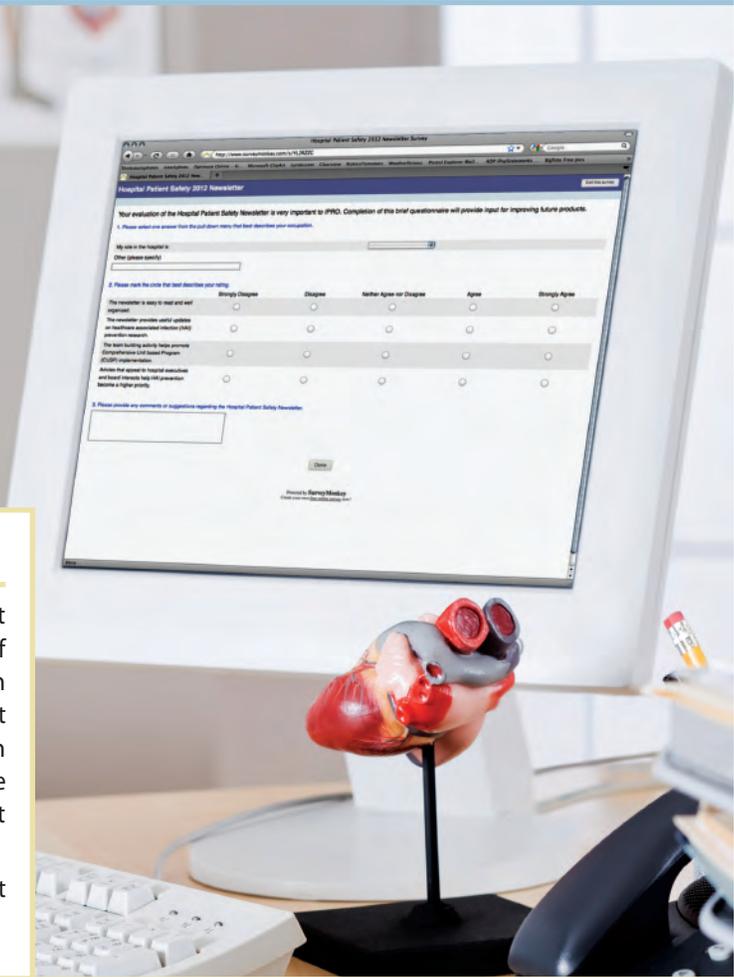
June 7–10: **APIC 40th Annual Conference: Advancing Infection Prevention Education**
Association for Professionals in Infection Control and Epidemiology (APIC)
Fort Lauderdale, FL
<http://ac2013.site.apic.org>

June 12–13: **2013 TeamSTEPPS National Conference**
Agency for Healthcare Research and Quality (AHRQ)
Dallas, TX
<http://teamstepps.ahrq.gov/nationalconference.htm>

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About IPRO

Through its work as the Medicare Quality Improvement Organization for New York State, IPRO targets the quality of healthcare provided to the State's more than three million Medicare beneficiaries. A not-for-profit, independent organization, IPRO supports providers across the state with evidence-based, clinical interventions and objective expertise to improve healthcare processes and patient care.

For more information about IPRO, please visit www.ipro.org.

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