



YOUR BEST SOURCE FOR JOINT COMMISSION COMPLIANCE

HOSPITAL PEER REVIEW®

Accreditation • Credentialing • Discharge Planning • Medicare Compliance • Patient Safety • QI/UR • Reimbursement



IN THIS ISSUE

- **Hospital-acquired infections:** Most hospitals *not* complying with recommendations cover
- **Infection control:** Organizations share their proven strategies 4
- **MRSA:** Three things your hospital should be doing to stop its spread 5
- **Discharge Planning Advisor:** Program targets uninsured patients; CMS emphasizes patients' right to choose 7
- **Concurrent data collection:** It's the only way to make changes in real-time 11
- **The Quality-Co\$t Connection:** Use these alternative techniques when your RCA reaches a dead end 13

Also included
Patient Safety Alert

Financial Disclosure:

Editor Stacey Kusterbeck, Managing Editor Jill Robbins, Associate Publisher Coles McKagen, and nurse planner Paula Swain report no consultant, stockholder, speaker's bureau, research, or other financial relationships with companies having ties to this field of study. Consulting Editor Patrice Spath discloses she is principal of Brown-Spath & Associates.

JANUARY 2008

VOL. 33, NO. 1 • (pages 1-16)

87% of hospitals aren't following all practices to stop avoidable infections

Report's findings are 'alarming'

Patients, the press, and payers — all eyes are on the topic of hospital-acquired infections. Recently, the Centers for Medicare & Medicaid Services (CMS) announced that the Medicare program will no longer provide reimbursement for the additional costs incurred for these conditions.

Yet, surprisingly, 87% of 1,256 U.S. hospitals surveyed by the Washington, DC-based Leapfrog Group do not have all of the recommended policies in place to prevent many of the most common hospital-acquired infections.

As part of the Leapfrog Hospital Quality and Safety Survey, hospitals were asked about their practices related to the prevention of four common infections: aspiration and ventilator-associated pneumonia (38.5% of hospitals were in full compliance); central venous catheter-related bloodstream infection (35.4% of hospitals were in full compliance); surgical-site infection (32.3% were in full compliance); and influenza (30.7% were in full compliance).

The fact that 87% of hospitals surveyed are not taking the recommended steps to prevent deadly infections is "alarming," says **Karen Linscott**, Leapfrog's acting CEO. "All hospitals should be employing these basic infection avoidance protocols," says Linscott. "Leapfrog will continue to shine the light on how hospitals are doing on this front with new data each year."

The biggest challenge has been fully implementing recognized, standardized practices 100% of the time, says **Thomas Talbot**, MD, MPH, chief hospital epidemiologist at Vanderbilt University Medical Center in Nashville, TN.

"That means not only devising tools to use at the bedside at the time of the most critical impact, but also tracking those practices so we can give feedback to everybody," says Talbot. For example, you want to be able to tell staff that of all the central lines placed last month, how many were placed using appropriate precautions.

"Now we are getting to the point where we can tie that to our infections — and say, 'Where did we lapse in this group of people that had infections?'" says Talbot.

Here, organizations share their best strategies:

- **Include infection control in your strategic plan.**

Norwalk (CT) Hospital's strategic plan includes two initiatives that address infection prevention: "reduction of mortality and morbidity" and "excellent care for common conditions." The initiatives include Leapfrog

NOW AVAILABLE ON-LINE! Go to www.hpronline.com.
Call (800) 688-2421 for details.

recommendations for ventilator-associated pneumonia, central venous catheter bloodstream infections, and surgical-site infections. "The use of best practices has, in fact, reduced our rates of infection," says **Claire Davis**, vice president of quality. "Our board and senior leadership staff have endorsed these practices, resourced them, and track to ensure successful outcomes."

- **Give prompt feedback.**

Quality professionals at Vanderbilt are working with the hospital's informatics staff to automate its surveillance system, with the goal of

Hospital Peer Review® (ISSN# 0149-2632) is published monthly, and **Discharge Planning Advisor™** and **Patient Satisfaction Planner™** are published quarterly, by AHC Media LLC, 3525 Piedmont Road, Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodicals postage paid at Atlanta, GA 30304. POSTMASTER: Send address changes to **Hospital Peer Review®**, P.O. Box 740059, Atlanta, GA 30374.

AHC Media LLC 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.

This activity is valid 24 months from the date of publication.

The target audience for **Hospital Peer Review®** is hospital-based quality professionals.

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.

Subscriber Information

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

Subscription rates: U.S.A., one year (12 issues), \$469. Add \$12.95 for shipping & handling. Outside U.S., add \$30 per year, total prepaid in U.S. funds. Discounts are available for group subscriptions. For pricing information, call Tria Kreutzer at (404) 262-5482. Missing issues will be fulfilled by customer service free of charge when contacted within 1 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 LLC. Address: P.O. Box 740056, Atlanta, GA 30374. Telephone: (800) 688-2421 or (404) 262-5491.

Editor: **Stacey Kusterbeck**, (631) 425-9760.

Senior Vice President/Group Publisher: **Brenda Mooney**, (404) 262-5403, (brenda.mooney@ahcmedia.com).

Associate Publisher: **Coles McKagen**, (404) 262-5420, (coles.mckagen@ahcmedia.com).

Managing Editor: **Jill Robbins**, (404) 262-5557, (jill.robbins@ahcmedia.com).

Copyright © 2008 by AHC Media LLC. **Hospital Peer Review®**, **Discharge Planning Advisor™**, and **Patient Satisfaction Planner™** are trademarks of AHC Media LLC and are used herein under license. All rights reserved.



Editorial Questions

For questions or comments, call **Stacey Kusterbeck** at (631) 425-9760.

being more transparent to clinicians and feeding data back to them as rapidly as possible.

For instance, a nurse will be able to see almost all of the data that are retrievable in the electronic record, and spot suspected ventilator-associated pneumonia. "They will be able to say, 'This is a new pneumonia' in fairly real-time," says Talbot. The next step is to be able to alert front-line clinicians and IT managers, and then tie the information to process measures, so problem areas can be targeted.

- **Collaborate with infection control.**

Now that quality and infection control have more clout, both should take full advantage by forming collaborative relationships, advises Talbot. "Previously, infection control would present their data and no one would necessarily pay much attention to it," he says. "But with the advent of the quality movement, that has really changed."

Initially, infection control looked at quality as "the new kid on the block," and didn't understand why another department was looking at infections when that was their role. "But once we got to know the new kid, we realized that what they were doing was different, but it really augmented what we had been doing," says Talbot. "Now we have our offices in the same suite as the quality group and we work very closely together. We are the content experts and they have ways to analyze data that are different than we traditionally used."

At Chapel Hill, NC-based UNC Health Care, the approach involves infection control professionals, quality professionals, medical and nursing staff, ancillary personnel, and administration, says **David J. Weber**, MD, MPH, medical director of the department of hospital epidemiology.

"Infection control meets regularly with CQI and QA personnel, participates in the monthly meeting of our Quality Council, and has a close working relationship with our chief of staff," he says.

At Oakland, CA-based Kaiser Permanente, quality, safety, and infection control leaders work together with front-line nurses and physicians to develop and implement plans, says **Alide L. Chase**, senior vice president for quality and service.

"A good working relationship with all health care workers and a very visible infection control program increases communication," says Chase. "This makes it more likely for all health care workers to report infection control issues, including infections."

- **Identify post-discharge infections.**

"We have one of the shortest lengths of stay in the country, so a lot of our infections occur after discharge," says Talbot. A patient may develop a peripherally inserted central catheter line infec-

tion, but is the cause due to the insertion of the line in Hospital A, the maintenance of the line when the patient went home for a week, or something that occurred when he or she went to Hospital B for an unrelated reason?

Infection control has partnered with Vanderbilt's case managers in each surgical group who field calls from each patient as they have problems. "They may know of potential infections that we never see on the radar," says Talbot. "We still would miss someone who went totally out of our system, but we are really trying to use a multi-pronged approach to pick these people up."

Tracking to find the source

One concern is the tendency to rationalize that an infection was due to another hospital or conduct "surveillance lite." "If you don't look too hard for infections, you won't find them," says Talbot. "That is why I'm an advocate for reporting and tracking adherence to process measures rather than outcomes."

If a hospital has data on each central line placed, such as what percentage had barrier precautions used, that a much stronger measure of quality than infection rates, since individual patients may be affected by morbidity that cannot totally be adjusted for, Talbot explains.

At University of California Irvine Medical Center, post-discharge infections are detected by screening lab results if the patient returns to the hospital or an ambulatory clinic, or through reporting between infection prevention professionals.

"Screening of lab results is routinely performed by infection prevention," says **Linda L. Dickey**, RN, MPH, CIC, manager of epidemiology and infection prevention. "However, any clinic, quality professional, or health care provider can call or e-mail to report a possible infection concern, particularly if there are concerns that may involve clusters of infection of the same type that are detected through routine chart review or a patient visit."

To gather data on patients who develop infections post-discharge at OSF Saint Francis Medical Center in Peoria, IL, infection control staff receive all inpatient and outpatient microbiology labs. "Cultures are reviewed daily, to determine if an outpatient who had a positive culture could have acquired the infection at our hospital," says **Patricia Ham**, RN, MS, CIC, manager of epidemiology, infection prevention and control.

Additionally, nurses conducting surveillance notify infection control of cases they have identi-

fied through review of patient charts in surgeon offices, says Ham.

At Norwalk, quality managers provide the infection control nurse with any cases identified via generic screening, occurrence reporting, patient complaints, and risk management data sources. "She may already know of many of these, but there are times, particularly with post-discharge complaints or risk contact, that a case of post-discharge infection may be identified that was not previously known," says Davis. "Likewise, infection control feeds data to quality as necessary."

Post-discharge infections also are identified via daily checks of culture results, checks of every readmission from a previous inpatient or outpatient procedure, and referral of cases from patient complaint and risk management mechanisms. "We also send a monthly fax to our surgeons with their patients from the previous month for them to check and let us know of any infections," says Davis.

At Mission Hospitals in Asheville, NC, post-discharge infections in the outpatient surgical center are tracked with a survey to the physician's office. "We have a 60% response rate," reports **Tom Knoebber**, director of performance improvement.

At Kaiser Permanente, an electronic health record system makes post-discharge "easy and very accurate," says Chase. "Our infection control professional can monitor patients electronically and review their post-discharge visit to determine if an infection developed," she says.

• Identify missed infections.

Through involvement with the Surgical Care Improvement Project (SCIP), the American College of Surgeons National Surgical Quality Improvement Program, incident reporting, and surveillance, Miami-based Baptist Health System has a number of ways to "catch" infections, says **Jill M. Szymanski**, RN, MS, CHE, CPHQ, manager of quality management.

"Our process also includes monitoring our patients concurrently. For example, we have a quality professional working with our infection control practitioners to review all coronary artery bypass graft surgeries throughout the patient's hospital stay," says Szymanski. "We have follow-up phone calls to the patients to determine if they have signs or symptoms of an infection."

If there is a concern with infections, then data are reviewed to determine if a trend exists. "We focus on the time of day of surgery, the surgeon, process issues, and the type of pathogen to see if there is a trend, then work together to improve then develop action plans when applicable," says Szymanski.

At University of California Irvine, infections missed by routine surveillance are identified when charts are reviewed for different purposes, such as the SCIP initiative. "Also, data are shared between infection prevention and the abstractor to help identify surgical-site infections," says Dickey.

At OSF St. Francis, the quality analysts who perform chart reviews notify infection control of any patients that they identify with an infection. "The infection control staff then review the case to determine if the infection was health care acquired," says Ham. To identify infections missed by routine surveillance, infection control "has a presence" on the nursing units, attends rounds, and talks with nurses, doctors, and case managers, adds Ham.

At Mission Hospitals, the performance improvement (PI) and infection control departments are working to automate data collection and surveillance. "We recently subscribed to a product that is intended to report positive cultures in real-time," says Knoebber. "Within PI, we are collecting data using a MIDAS interface. There is some duplication, but we will address this once everyone is up. We plan to add infections to our administrative dashboard and will track this monthly."

The task of identifying cases missed by routine surveillance currently falls primarily to the bedside nurse. "Our hope is through automated systems we can capture all positive test results and monitor trends," says Knoebber.

[For more information, contact:

Claire Davis, Vice President, Quality, Norwalk Hospital, 34 Maple St., Norwalk, CT 06856. Phone: (203) 852-2212. Fax: (203) 852-3436. E-mail: claire.davis@norwalkhealth.org.

Linda L. Dickey, RN, MPH, CIC, Manager, Epidemiology & Infection Prevention, University of California, Irvine Medical Center, 101 The City Drive, Rt. 171, Orange, CA 92868. Phone: (714) 456-5360. Fax: (714) 456-5367. E-mail: ldickey@hs.uci.edu.

Patricia Ham, RN, MS, CIC, Epidemiology, Infection Prevention & Control, OSF Saint Francis Medical Center, 530 NE Glen Oak, Peoria, IL 61637. Phone: (309) 655-4694. E-mail: Patricia.A.Ham@osfhealthcare.org

Tom Knoebber, Director, Performance Improvement, Mission Hospitals, 509 Biltmore Ave., Asheville, NC 28801. Phone: (828) 213-9194. E-mail: CIATXK@msj.org.

Thomas Talbot, MD, MPH, Chief Hospital Epidemiologist, Vanderbilt University Medical Center, A-2200 Medical Center North, 1161 21st Ave. S., Nashville, TN 37232. Phone: (615) 322-2035. E-mail: tom.talbot@vanderbilt.edu.] ■

Set a goal of zero central line and VAP infections

Determining what is really preventable

A movement toward "zero tolerance" for hospital-acquired infections is gathering steam. "I am a true supporter of that goal, but we have to figure out if that is a realistic goal," says **Thomas Talbot**, MD, MPH, chief hospital epidemiologist at Vanderbilt University Medical Center in Nashville, TN.

The challenge is to determine what percentage of infections are totally preventable. "The pendulum has really shifted nationally that any infection is a bad infection, and we all agree with that," says Talbot. "But the question is whether any infection is a preventable infection. We don't know what that threshold of percentage is — can we prevent 75% or 80%?"

An overweight smoking diabetic who comes in for cardiac surgery is clearly at higher risk, even if everything is done correctly. "But we want to be able to reassure ourselves that we have eliminated preventable infections for every patient who comes in," Talbot says.

Oakland, CA-based Kaiser Permanente set an organizational goal to reduce hospital-acquired infections to zero, says **Alide L. Chase**, senior vice president for quality and service. "Our northwest region has already reached and sustained that goal, with zero central line infections for 500+ days and zero bloodstream infections in the last four quarters," she reports.

Best practices are shared through a national infection control steering committee. "We work on national projects focused on reducing infection transmission, facilitate standardization of surveillance methodologies, and improve patient health outcomes through identification and implementation of evidence-based practices," says Chase.

At Vanderbilt, a central line initiative was implemented in one of the hospital's intensive care units, after problems with catheter-associated bloodstream infections were identified. "Like any successful initiative, we started in one area that was really vested in this. They agreed there was a problem and agreed on the process to solve it," says Talbot.

A checklist was developed, but more importantly, everyone at the bedside was empowered to stop the procedure if things aren't happening as they are supposed to.

'Pilot-copilot checklist'

For example, if a nurse sees a resident wearing gloves without full barrier precautions, team members expect that the nurse will stop the procedure. "This isn't a confrontation, but a pilot-copilot checklist," says Talbot. "Creating collaborative accountability is key."

After central line infections were dramatically reduced in the ICU, the same process was rolled out in other ICUs. "Our challenge is that we still have better performers than others," says Talbot. "Early on, a couple of the ICUs began using the checklist, but they did this without any education or culture change. It didn't work, which is not surprising."

To reduce central line-associated bloodstream infections, University of California Irvine Medical Center implemented the Institute for Healthcare Improvement's Central Line Bundle in all adult critical care units and the OR. Practices include:

- hand hygiene by inserter prior to line insertion;
- cap/gown/sterile gloves/mask worn by inserter prior to line insertion;
- full sterile drape used to cover patient prior to line insertion;
- avoidance of the femoral site;
- selection of optimal site for insertion.

"Compliance with each of these measures is monitored at the time of insertion," says **Linda L. Dickey**, RN, MPH, CIC, manager of epidemiology and infection prevention. "Data are collected and fed back to physicians, staff, and administration."

At Vanderbilt, an initiative to reduce ventilator-associated pneumonia (VAP) was the topic at a meeting with key leaders, ICU directors, bedside nurses, and administrators. "Our goal was to get it up and running in six weeks," says Talbot. "We had a couple of roadbumps, but after implementation, we had a dramatic reduction in infection rates."

For some of the units that didn't show reductions, reasons for poor compliance are being pinpointed. For instance, one of the recommendations is to wean the patient off the ventilator more quickly to reduce risk. It was discovered that an attending physician was concerned about stroke patients being weaned off too soon, and as a result of this concern, the unit was resistant to the whole initiative.

At University of California Irvine, the following interventions were implemented to reduce VAP:

- Improved mouth care for patients on ventilators, including increased frequency of cleaning and use of chlorhexadine;
- All the measures included in the IHI "VAP

Bundle" (elevation of the head of the bed, peptic ulcer disease, and deep venous thrombosis prophylaxis, daily "sedation vacations," and assessment of readiness to extubate);

- Participation in the California Assessment and Reporting Taskforce, which measures compliance with these VAP prevention processes;
- Measuring rates of VAP in all critical care units, with data fed back to clinicians and administration.

As an active participant in the Surgical Care Improvement Project initiative, Asheville, NC-based Mission Hospitals is now moving beyond the recommended smaller subpopulations to a housewide approach. "We are actively applying preoperative glucose and hypertension screening, normothermia management, and hair removal using clippers and venous thromboembolism prophylaxis," says **Tom Knoebber**, director of performance. "After implementing VAP and central line protocols, one of the hospital's ICUs has had zero VAPs for 190 days.

OSF Saint Francis Medical Center implemented a VAP bundle, which includes frequent oral hygiene, in-line suctioning, and elevation of the head of the bed unless medically contraindicated. Additionally, a "wean team" was created, staffed with two nurse practitioners and a respiratory therapist. "This team can be consulted by the attending physician to oversee the weaning and respiratory management of complex respiratory patients," says **Patricia Ham**, RN, MS, CIC, manager of epidemiology and infection prevention and control. "During daily rounds, the need for the central line is assessed, and the catheter is discontinued at the earliest opportunity." ■

CDC: Hospitals "need to do more" to control MRSA

AHRQ report disheartening

Five percent of patients treated in U.S. hospitals for methicillin-resistant *Staphylococcus aureus* (MRSA) die from the infection, says a new report from the Agency for Healthcare Research & Quality.¹ Nearly 19,000 Americans died in 2005 of MRSA infections, according to a study from the Centers for Disease Control and Prevention (CDC). Researchers project that 94,360 patients developed an invasive infection from the pathogen in 2005, and 85% appear to be traceable back to hospitals, nursing homes or medical clinics.²

What are the implications of these statistics?

"The study suggests that MRSA is an important cause of infection in health care facilities in this country, and that health care facilities need to do more to control it," says **John A. Jernigan**, MD, MS, acting deputy chief of the CDC's Prevention and Response Branch.

Appropriate strategies must be fully implemented, regularly evaluated for effectiveness, and adjusted so there is a consistent decrease in the incidence of targeted multidrug-resistant organisms (MDROs) such as MRSA, says Jernigan. Successful prevention and control of MDROs requires administrative and scientific leadership, and a financial and human resource commitment, he says.

"We've got to martial all of the forces, otherwise this bacteria will remain in our environment. Everybody's got to do their job," says **William F. Minogue**, MD, FACP, executive director of the Maryland Patient Safety Center in Elkridge.

Over the years, staph has "reared its ugly head" several times, says Minogue, but each time the pharmaceutical industry came up with an antibiotic that worked. "Methicillin was supposed to be the magic one that was going to continue to work, but that is not so anymore," he says. "Unfortunately, there is a lot of hysteria in the community that I don't think is really warranted if we all change some of our hygiene behaviors."

Here are three interventions hospitals should be doing:

- **Hygiene practices.**

This includes hand washing or use of an alcohol-based sanitizer before and after every patient contact and before and after putting on gloves, wearing gowns when visiting or caring for people who are sick or carry bacteria such as MRSA, and meticulous cleaning of the environment and equipment.

"There is a tremendous amount of pressure on this," says Minogue. "We are seeing enforcement at a level we have never known before."

- **Isolating infected patients and having staff use contact precautions.**

While some hospitals have reduced infection rates with this practice, there is some concern that it could result in poor care for isolated patients. CDC guidelines recommend that hospitals attempt to reduce their infection rates by first improving hygiene procedures, and that they resort to screening high-risk patients only if other methods fail.

- **Active surveillance.**

"This is somewhat new to us, to find out when people come in the door whether they are carrying the bacteria or not," says Minogue.

Most hospitals are doing active screening for intensive care unit patients because they are the most vulnerable. "Some have added the neonatal ICU to that. And some are beginning to screen patients coming from other community venues, such as dialysis centers," says Minogue.

Previously, active surveillance wasn't really practical because it took 48 to 72 hours to get results, until recently. "Meanwhile, colonized patients moved through the system of care undetected," says Minogue. "Now with quick turnaround tests it's a different game — on average you have an answer in about 12 hours — and that is very good news."

At Henry Ford Health System in Detroit, surveillance cultures for MRSA are taken upon a patient's admission to an ICU and weekly thereafter. "Once positive cultures are received, patients are placed in contact precautions for the remainder of their ICU admission," says **Sue A. Lloyd**, MT(ASCP), CHSP, CIC, manager of infection prevention. Patients undergoing high-risk surgery have nasal swabs preoperatively. If positive for MRSA, vancomycin will be used for prophylactic antibiotics.

Collaboration is key

Ten Maryland hospitals have joined forces with the Maryland Patient Safety Center. The hospitals are using a different approach than the typical educational campaigns targeting health care workers. The "Positive Deviance" method asks hospitals to look for unique practices that already exist in units, that make it possible for everyone to always follow infection control practices. Some examples:

- Hooks were placed outside patient rooms so doctors had a place to hang their white coats while wearing protective gowns in isolation.
- Clergy covered their bibles with surgical caps to avoid carrying infections from patient to patient.
- Housekeeping staff developed checklists for cleaning rooms, then tested the effectiveness of their process with a glow-in-the-dark chemical that showed the spots they missed.
- One nurse mentioned that she stocked her ICU patient rooms with full bottles of hand sanitizer each morning, so health care workers, therapists, family, and other visitors could easily remember to always wash their hands. Now all the nurses on her unit are doing the same thing.

"Patients acquire MRSA infections in every American hospital today. Those who deny that are either lying or not looking," says **Richard Boehler**, MD, vice president for medical affairs and chief

Continued on p. 11

Discharge Planning Advisor®

– the update for improving continuity of care

- Accelerated discharge
- Staff cooperation
- Placement strategies
- Reimbursement
- Legal issues
- Case management

Program targets uninsured, underinsured patients

Goal: Establishing 'home' at nearby center

Self-pay emergency department patients who have no primary care provider are being referred to a nearby primary care and specialty center under a program in place at St. Mary's Hospital in Tucson, AZ, part of the Carondelet Health Network.

The majority of the patients involved are uninsured or underinsured working people who may have already applied for help through the Arizona Medicaid program, known as the Arizona Health Care Cost Containment System (AHCCCS), says **Cassandra Pundt**, RN, PEN, emergency services patient representative. "They make a little too much money [to qualify] or have had AHCCCS but haven't kept it up."

The referral "gets them into the loop" to receive primary care services at St. Elizabeth's Health Center, she adds. "Our goal is to get them follow-up care and [do the] paperwork. If they get a health care home, they will use ED services less.

"Our [ED] volumes are overwhelming, especially in the winter," Pundt says. "Once we get into the winter crunch, we can have 20 or 30 people waiting for an ED treatment bed, although they are triaged immediately."

The process, which began in August 2006, works as follows, she explains: "Our [registrar] gets the demographics and data needed for our Meditech [registration and patient logging] system, which logs the patient visit, including the insurance provider if the person has one.

"Our information systems staff have programmed the registration system to spit out the names of patients who meet the criteria — self-pay, no insurance provider," she continues. At 6 a.m. each morning, Pundt says, she receives the report on the previous day's patients.

As of April 2007, there is a new twist: The patients are divided into those with addresses and those without, she notes, in order to direct the latter to a clinic that now specifically addresses the needs of the homeless population.

Pundt says she can distinguish between the two groups because registrars know to enter the hospital's address for those who don't list a residence. At that point, she faxes the appropriate face sheets either to St. Elizabeth's or to El Rio, the clinic handling the homeless population.

"Our social worker tends to get involved with the homeless anyway," Pundt notes. "There are several brochures we have about services. Before this program, all these people were slipping through the cracks."

All of the individuals referred to the two clinics have been discharged from the ED, she points out. "Some of them may not need follow-up care, but we still want to refer them so that if they need a flu shot or get sick again and have a minor problem, they will call St. Elizabeth's or El Rio."

In addition to the daily screening of face sheets, Pundt adds, ED staff can alert her or the social worker if they think a patient has a particular need or can benefit from referral to one of the two clinics.

If that happens, she says, "I make sure they get sent over and I also make a follow-up phone call.

Anything brought to my attention today, I will deal with."

While it's difficult for nurses — who are focused on clinical issues — to consistently screen for likely candidates, Pundt notes, educating staff to pass on information about specific cases to her or the social worker is one of the goals of the program.

In one instance, Pundt recalls, a young man with a dislocated shoulder made several visits to the ED and was ultimately referred to St. Elizabeth's for orthopedic care. A self-employed construction worker, the man originally didn't meet the criteria.

"He couldn't work and he couldn't make money, but then [he qualified] when he got down to having no money," she says. "The only way he could get back to work was to get his shoulder fixed. Everything was going well the last time I talked to him."

Another case recently brought to her attention involved a woman who came in to be treated for one condition, but during triage also was found to have extremely high blood pressure. "When she was asked what she took for that, she said, 'Nothing — it's too expensive.' The [triage nurse] alerted me, I got her connected with St. Elizabeth's, and she is now on medication."

Another goal of the referral effort, Pundt notes, is to identify children who might qualify for Kids Care, an arm of the AHCCCS program.

"Say an adult comes in, but in a follow-up phone call to the person, we find out he has a family," Pundt says. "We may find that the parents make too much money to get total AHCCCS [coverage] for themselves, but the kids are eligible."

Local school systems also help identify children who are eligible for the program, she adds.

During the 14-month period between August 2006 and October 2007, there were 1,325 referrals for patients "who aren't emergencies, don't have insurance, and don't have regular medical care" from St. Mary's Hospital to St. Elizabeth's Health Center, according to **Nancy Johnson**, RN, PhD(c), executive director of the health center.

Center uses sliding fee scale

St. Elizabeth's serves individuals who are not eligible for federal- or state-funded health care programs, Johnson notes. They are put on a sliding scale and pay whatever they can afford, she says.

The effort, which began as a pilot program, will be continued, she says, noting that of the patients referred to the health center, 327 — including some family members — were successfully registered, and about 132 "have established care" at St. Elizabeth's.

"The definition of that is that they have actually shown up, registered, and had one appointment with a primary care provider," Johnson adds.

"Where the rubber meets the road is if they continue [to come to the health center] and we see that we don't have other hospitalizations," she notes. "That is yet to be seen."

Further breaking down the number of referrals, says Pundt, 91 people have had more than one appointment at St. Elizabeth's, and 159 individuals received help through the center's prescription assistance program.

"The numbers keep whittling down, but they are for a program that is not much more than a year old," she adds. "We are still learning how to promote it to the community."

Of the 1,325 referrals to St. Elizabeth's, Pundt says, staff were unable to reach 178 people because they had given their names or other information incorrectly.

Various locations help initiative

Between April 2007 when St. Mary's began its program with El Rio and July 2007, about 160 homeless individuals were referred to that clinic, Pundt notes. "They only made contact with 16 people who followed up. There were a lot they just couldn't track down."

In addition to continuing its partnership with St. Mary's, Johnson says, St. Elizabeth's staff will be seeking out those in need of affordable care in other places. One of those locations, she notes, is a small volunteer clinic in south Tucson called Clinica Amistad.

"There is no outpatient care of any kind in that area, so it's not easy [to get treatment] if you wake up in the morning and aren't feeling well," she says.

Clinica Amistad is run by volunteers, Johnson adds, and is open only on Monday evenings. "Seventeen to 30 people show up who have no physician, no money, no insurance."

"We started sending one of the community health workers from our center there to let people know we're here," she says, "and to do health education with whoever shows up." The plan

was to encourage them to enroll at the center, Johnson adds, "and start getting them involved in preventive health care as well as acute care — things like flu shots and PAP smears."

The message her staff want to get across, she says, "is that we can offer services based on what they can pay." As a result, it is anticipated that the hospital ED will see fewer uninsured people who are not emergencies, and there will be fewer hospital admissions.

Key to the success of St. Elizabeth's programs, Johnson notes, is the support of Tucson physicians. "Our great blessing is that we have over 150 volunteer physicians who help us." Physicians donated care worth \$750,000 during the past fiscal year, she adds, including expertise, X-rays, and use of the vascular lab, among other services.

One of the challenges center staff face in their efforts to provide care to the uninsured, she says, is the reluctance of many individuals to seek treatment — no matter how crucial — that they know they can't afford.

"We have one woman in for breast cancer treatment who had a palpable lump," Johnson notes. "She said, 'I don't want to leave my family with a large medical bill. I'd rather leave my savings account to them.'"

St. Elizabeth's staff were able to tell the woman about funding that is available from grants and from the Komen Foundation, she says, as well as care from volunteer clinicians.

Models 'integrate family, neighborhood'

"The projects we work with are models that integrate family and neighborhood," Johnson explains. "If I'm hanging out with people who eat healthy and take a walk every morning, I'm not as likely to eat doughnuts and lie in front of the television. A lot of people are influenced by those around them."

The Monday night sessions that St. Elizabeth's community health workers conduct at Clinica Amistad, for example, include nutrition education and chair exercise sessions "with whoever happens to be there," she says. "It's very impromptu. They might say, 'We will talk tonight about protein and where to find it, or calcium and what foods it's in.'"

Staff might start a conversation with patients about the foods they like to prepare and suggest ways to make them healthier, or discuss stress management activities, Johnson says.

"Our education is twofold," she adds. "One [approach] is to provide health information, but another is to build trust and to convince people that [St. Elizabeth's] will be a comfortable place to get care."

Cooperation between health center and hospital employees is a continuing focus, Johnson notes. "When one of our patients needs to have surgery for cancer, we call ahead to let the hospital know the person doesn't have insurance, so they can be prepared to help rather than have it be a traumatic experience."

St. Elizabeth's personnel work with hospitals to set up packages and payment plans for uninsured patients, she says, including an arrangement with Tucson's University Hospital on obstetrics care.

The health center has obtained funding to establish an electronic medical record system (EMR), Johnson says, which is expected to be in place by this summer.

"That will help us tremendously," she adds. "We're building in some templates for all the education and health prevention [programs] we're doing."

In the case of patients who are referred from the ED, Johnson says, "we will be able to measure the power of these interventions. We might have a diabetic who has improved — his hemoglobin A_{1C} has gone down, which is the gold standard we use for control of diabetes."

Using the EMR, she explains, the individual would be logged in as an ED referral, with notations in the record showing that he came to the nutrition class and did the chair exercises, and that those things actually affect clinical outcomes.

"Most EMRs are designed for what happens in the exam room, and that is certainly helpful; but the premise we have is that [the traditional] model of care needs adjustment and that some of the preventive interventions may affect everything else."

Physicians will be able to pull a person's record, she adds, and say, "'Oh, I see you've been going to this exercise class.'

"We live in a really abundant society," Johnson point out, where a lot of money is channeled toward health care. "Money is spent on treatment and hospital care. It is a disease-based model. We reimburse hospitals and specialists for surgery, radiation, and chemotherapy, but we don't have a lot of funding on the front side for prevention."

If an uninsured person feels fine, she may not see spending \$75 for a mammogram. "I believe

there needs to be a shift to get money on the front side and help people who are working but who can't afford to pay \$1,000 a month for insurance."

(Editor's note: **Cassandra Pundt** can be reached at cpundt@carondelet.org. **Nancy Johnson** can be reached at njohnson@ccs-soaz.org.) ■

CMS keeps emphasizing patients' right to choose

Discharge guidance refers to BBA

Federal regulators continue to make it clear that they are serious about patients' right to freedom of choice of providers, says **Elizabeth E. Hogue**, Esq., a Burtonsville, MD-based attorney specializing in health care issues.

Draft supplemental compliance guidance published recently by the Office of the Inspector General (OIG) of the U.S. Department of Health and Human Services, Hogue notes, refers to requirements of the Balanced Budget Act (BBA) of 1997. The excerpt below, she adds, specifically relates to patients' freedom of choice:

"When referring to home health agencies, hospitals must comply with section 1861(ee)(2)(D) and (H) of the Act, requiring that Medicare participating hospitals, as part of the discharge planning process, (i) share with each beneficiary a list of Medicare-certified home health agencies that serve the beneficiary's geographic area and that request to be listed and (ii) identify any home health agency in which the hospital has a disclosed financial interest or that has a financial interest in the hospital."

Based upon that excerpt, Hogue says, the OIG has shown a clear willingness to treat violations of the requirements of the BBA as a form of fraud and/or abuse of federal health care programs.

The OIG also indicated that it has authority to exclude individuals or entities from participation in the federal programs if they provide unnecessary items or services, she adds, such as those in excess of the needs of the patient, or substandard items, including those of a quality that fail to meet professionally recognized standards of health care.

The OIG further states that knowledge and/or intent are not required for exclusion under this

provision, Hogue continues. The exclusion can be based upon unnecessary or substandard items or services provided to patients, she says, even if the care provided is not paid for by the Medicare or Medicaid programs.

Violations of hospital conditions of participation, including those that govern discharge planning, or any other applicable standards of care may result in either over- or under-utilization of services and sanctions by the OIG. "It is logical to conclude that applicable standards of care also include the requirements of the BBA."

Consequently, she adds, hospitals that violate applicable standards of care related to patients' right to freedom of choice of providers and discharge planning may be subject to sanctions by the OIG.

"It is also important for discharge planners and case managers who work for hospitals to know that there is a broad array of tools available to providers and regulators to enforce patients' rights," Hogue says, including the following:

- Helping patients pursue violations of their common-law rights to freedom of choice of providers regardless of payer source or type of care rendered primarily through the use of signed statements that describe violations.
- Helping patients pursue violations of two federal statutes that guarantee Medicare and Medicaid patients the right to freedom of choice of providers primarily through the use of signed statements that describe violations.
- Reports to the Centers for Medicare & Medicaid Services (CMS) regional and central offices of violations of patients' rights to freedom of choice of providers by providers who participate in the Medicare/Medicaid programs.
- Reports about violations of patients' rights to state surveyors who treat such information as complaints and conduct surveys of hospitals and other providers that participate in the Medicare and Medicaid programs.
- Reports to the OIG of violations of patients' rights to freedom of choice of providers and/or violations of applicable standards of care that may result in sanctions against providers.

"There are more and more avenues for both patients and providers to pursue violations of patients' right to freedom of choice of providers," Hogue says. "Discharge planners and case managers should be proactive when they encounter such violations."

(Editor's note: **Elizabeth Hogue** may be reached at ehogue5@comcast.net.) ■

Continued from p. 6

medical officer at St. Joseph Medical Center in Towson, MD, one of the participating hospitals.

At Baltimore Washington Medical Center in Glen Burnie, MD, another participating hospital, programs and policies have been instituted to control the spread of MRSA. "Ongoing education of staff, patients, and family is also a goal," says **Donna Lemmert, RN, CIC**, infection control coordinator.

The emphasis is on hand hygiene and wearing a gown and gloves for contact with all patients who have been identified as having a drug-resistant organism.

The hospital has identified critical care unit patients as a high risk of being carriers of MRSA. "All patients who are admitted to our ICU and CCU are screened at the time of admission for MRSA," says Lemmert.

The hospital uses technology that identifies positive patients within three hours. If cultures are positive, the patient is placed on contact precautions, which requires people who enter the room to not only clean their hands before and after contact with the patient, but also to wear a gown and gloves while in the room.

In addition, all patients are screened who are undergoing orthopedic surgical procedures that require implanted joints, and if positive, are treated before they undergo surgery.

St. Joseph's began doing active surveillance nasal cultures on all patients admitted to the ICU in 2000. High-risk patients are routinely prophylactically isolated while awaiting culture results, and about 20-25% of this group are culture positive.

"It is important to differentiate between colonization and infection with MRSA. A lot of the statistics surrounding MRSA and hospitals batch the carriers with those infected," says Boehler. "We isolate both groups, of course, but there is a profound difference in the two groups."

The carriers, mostly nasal and some skin fold, are by far the biggest group, and are at risk going forward of becoming infected with surgery, major illness or wound.

"For me, community means acquired prior to hospitalization at my facility," says Boehler. "This includes patients from institutional settings such as nursing homes, other hospitals in transfer or recently discharged, as well as the 'at large' citizen. Clearly, the former groups are the most prone to being colonized or infected."

The hospital has seen a 5 to 10% increase per year for the last several years in the numbers of patients presenting from the community with MRSA, both

colonized and infected. "In the same time frame, we have been successful in reducing the incidence of hospital-acquired MRSA by 45%," says Boehler.

As part of its active surveillance, patients are routinely re-cultured upon discharge from the ICU, or every seven days for long-stay patients.

This has been accomplished by rigid attention to contact isolation precautions and hand washing. "We do 'phantom shopper' surveillance by units and by discipline and routinely feedback performance," says Boehler. "We have remained at over 90% compliance with CDC guidelines for quite a long time, but this takes continuous attention."

References

1. Elixhauser A, Steiner C. Infections with methicillin-resistant *Staphylococcus aureus* (MRSA) in U.S. Hospitals, 1993-2005, HCUP Statistical Brief No. 35, July 2000. Agency for Healthcare Research and Quality, Rockville, MD.
2. Kleven RM, Morrison MA, Nadle J, et al. Invasive Methicillin-Resistant *Staphylococcus aureus* Infections in the United States JAMA. 2007;298:1763-1771.

[For more information, contact:

Richard Boehler, MD, Vice President for Medical Affairs/Chief Medical Officer, St. Joseph Medical Center, 7601 Osler Dr., Towson, MD 21204-7582.
E-mail: RichardBoehler@catholichealth.net

Donna Lemmert, RN, CIC, Infection Control Coordinator, Baltimore Washington Medical Center, 301 Hospital Dr., Glen Burnie, MD 21061.

Sue A. Lloyd, MT(ASCP), CHSP, CIC, Manager, Infection Prevention, Henry Ford Health System, One Ford Place, Detroit, MI 48202. Phone: (313) 874-4329. Fax: (313) 874-9515. E-mail: slloyd3@hfhs.org.

William F. Minogue, MD, FACP, Executive Director, Maryland Patient Safety Center, 6820 Deerpath Rd., Elkridge, MD 21075-6234. Phone: (410) 540-9210. Fax: (410) 540-9139. E-mail: wminogue@marylandpatientsafety.org.

Guidance on management of MDROs is available from the CDC's Healthcare Infection Control Practice Advisory Committee. Visit www.cdc.gov/ncidod/dhqp/pdf/ar/mdroGuideline2006.pdf. ■

Core measures: Are needed changes getting made?

Concurrent data collection is best

At Gautier, MS-based Singing River Hospital System, quality professionals were struggling

with a lack of timely feedback on core measure compliance due to a retrospective data collection process.

Abstraction and reporting of core measures was the responsibility of the case management department. "We were responsible for all utilization, resource management, and discharge planning functions, in addition to the abstraction and reporting of quality data and core measures," says **Kathy Dier**, RN, director of the organization's new "clinical data management" department, which now handles all core measure data collection.

At times, other areas were covered as well, including infection control, risk, and workers' compensation, with the required core studies abstracted post-discharge. "This could be up to one month after discharge," says Dier. "We tried to educate the case managers and do concurrent intervention, but did not make the progress we wished. We were not able to consistently intervene and impact process."

The quality department campaigned to have duties split, with case management re-organized and all quality and core measure duties pulled out. "I showed administration how a dedicated focus on these issues would make a difference, and presented a plan for staffing," says Dier.

A concurrent process was implemented to abstract charts real-time, identify opportunities for improvement, and intervene to impact patient care and core measure scores.

The hospital launched the process in November 2006. Four registered nurses now work throughout the hospital system, abstracting information and intervening with physicians and staff to change practice. The nurses came from the case management department so it was kept budget neutral.

"Education is a daily, even hourly occurrence. These nurses partner with all caregivers within the hospital to affect change, and teamwork is key," says Dier. "We do informal and formal inservices, and meet with physicians and staff individually or in groups."

For example, nurses look at an acute myocardial infarction patient's chart the day of admission, to be sure the patient received aspirin and beta-blockers. "If not, we go to the physician and either get the order or have them document the contraindication," she says.

When staff were having difficulty determining the current pneumococcal vaccination status of nursing home patients, the clinical data management nurses went out to the local nursing homes to work out a better process. "A form change was made, and this issue was resolved," says Dier.

For heart failure, if documentation is not noted in the chart, nurses pull all the appropriate paperwork, partner with the floor nurse, and get the education done.

In addition to the work of the clinical data management nurses, the physician-led "Total Quality Management" committee reviews core measures and other quality data, and makes recommendations for practice changes.

Singing River's core measure compliance scores have increased dramatically from October 2006 to September 2007. For acute myocardial infarction, compliance increased from 78% to 94%; for heart failure, 78% to 91%; for pneumonia, 59% to 98%; for Surgical Care Improvement Project (SCIP) measures 1-3, 63% to 92; and for SCIP measures 1-7, 76% to 95%.

Team effort

At San Ramon (CA) Regional Medical Center, a 123-bed hospital, quality managers do concurrent review for pneumonia, heart failure, and AMI core measures. "The concurrent review really is effective, because we can and do prevent missed opportunities, says **Janet Abernathy**, RN, clinical quality manager.

Abernathy says she works with coders, asking them for educated opinions on some of the more complex cases. "I also attend staff and department meetings to educate about core measures, and I run a weekly core measure meeting attended by all nursing directors to discuss where we are in performance for core measures," she says.

ED and staff nurses identify core measure patients on admission and start a "core measure-specific packet" that goes with the patient chart. "The core measure patients are put in yellow charts to differentiate them," she says. "The staff nurse has a checklist that stays on the front of the chart with some of the pertinent indicators that they have to fill in, which is not part of the permanent record."

The charge nurse completes an audit tool with more detailed information, which does become part of the medical record and is reviewed by Abernathy. During bed control meetings, which are held Monday through Friday, the charge nurses present all their core measure audit tools and the director of nursing or her designee reviews these.

On the physician side, Abernathy reports on core measure data at departmental meetings, and created posters to remind physicians of the indicators for all the core measures. She also created pocket cards with indicators for pneumonia,

heart failure, and AMI on one side and the guideline-concordant antibiotic regimens for pneumonia on the other side. AMI core measure scores increased from 88.6% in 2006 to 95.1%, heart failure scores increased from 80.3% to 86.7%, and pneumonia scores rose from 78.5% to 87.4%.

As the data are abstracted, Abernathy goes in and takes a more careful look at the cases that had missed opportunities, to be sure that it was a true missed opportunity. "Additionally, every quarter we do internally validate our data abstraction, and do an inter-rater reliability sampling as well, so we can be sure of the accuracy of our abstraction."

Abernathy also does a case-by-case drill down on all cases with missed opportunities. If the opportunity was missed due to nursing error, the case is forwarded to the appropriate nursing director, who is responsible for further investigation and action plan development. If the missed opportunity was due to physician error, the case is forwarded to the appropriate peer review group.

One challenge is to get all the required information, such as the patient's ejection fraction, in each episode of care for patients who have frequent admission. "The staff may have just documented it a week ago, but the patient has been discharged and then readmitted," says Abernathy.

To make it easier for physicians and nurses to provide discharge instructions to patients, the process was simplified. "We have pared down the amount of printed discharge information given to the patient significantly," says Abernathy.

Identifying core measure patients concurrently is a task that gets easier over time, says Abernathy. With concurrent data collection, staff can be given instant feedback on performance and are held more accountable.

"Concurrent review is the only way I can think of that gives you an opportunity to improve your patient care and raise your scores by fixing problems as they arise, instead of just reporting on them afterwards and hoping that staff won't make the same mistake again," she says.

[For more information:

Janet Abernathy, RN, Clinical Quality Manager, San Ramon Regional Medical Center, 6001 Norris Canyon Rd., San Ramon, CA 94583. Phone: (925) 275-8435. Fax: (925) 275-6170. E-mail: janet.abernathy@tenethealth.com

Kathy Dier, RN, Director of Clinical Data Management, Singing River Hospital System, 2012 Hwy 90, Gautier, MS 39564. Phone: (228) 497-8861. Fax: (228) 497-8875. E-mail: kathy_d@srhshealth.com.] ■

THE QUALITY - COST CONNECTION

Keep digging to uncover root causes

What do you do when your RCA hits dead end?

By Patrice Spath, RHIT
Brown-Spath & Associates
Forest Grove, OR

It can happen in any hospital. A cardiac surgery patient develops sepsis following a peripheral IV device-related infection. This infection ultimately contributes to the patient's death. Per Joint Commission standards, this event should undergo a root cause analysis (RCA).

A team is appointed to look into the cause of the infection, yet the review doesn't go as smoothly as other sentinel event investigations. First, the team finds it difficult to describe the steps leading up to the event. Nothing stands out as extraordinary and the team eventually decides that the root cause cannot be identified. The patient's infection is presumed to be an unfortunate, but unavoidable, complication.

It's not common, but on occasion an RCA team is stuck and can't find the root cause of a sentinel event. Deficiencies in the quality of care or medical errors may not be readily apparent by using traditional investigation techniques such as cause-and-effect diagrams or by answering questions on The Joint Commission's root cause analysis template. If the team reaches a dead end in the investigation, alternate inquiry methods can help evaluate the event and potential causes.

One such method is a barrier analysis. Using this technique, the RCA team would examine the effectiveness of safeguards or barriers in place to protect patients from experiencing an IV device-related infection. The team identifies all existing safeguards (e.g., IV site care, regular catheter replacement, etc.) and the facts surrounding the function of each safeguard. It may be necessary to obtain input from people not represented on the team. The goal is to identify barriers that should have worked to prevent the infection and resulting sepsis and identify any new barriers that need to be

put in place. The team examines each safeguard to determine whether it failed or succeeded. In addition, the team determines what additional physical, human action, and/or administrative controls might have prevented the event. In Figure 1 is a partially completed barrier analysis for the infection event. A separate barrier analysis could be done for the problem of sepsis, which might have been prevented if the IV site infection had been promptly identified and adequately managed.

Change analysis is another investigative technique. This tool is used to analyze the differences between usual practices and what happened during the incident-producing situation. Using change analysis the team identifies specific factors or differences that caused the outcome of a certain task to deviate from the anticipated outcome. The team is instructed to identify changes as well as the results of those changes. The distinction is important, because identifying only the results of change may not prompt the team to identify all causal factors of an event.

A partially completed change analysis worksheet for the infection event is shown in Figure 2. Change analysis involved the following steps:

- Describe the event situation and describe the same or similar situation that did not result in an undesirable event.
- To expand the thinking of the team, these descriptions are categorized into major factors that influence performance. The categories here are: what, when, where, who, and how. The factors listed in this example are only guidelines.
- For each factor thought to influence performance, describe the "event-producing situation" relevant to that factor and the "ideal or event-free" situation. Issues to consider in each of the major factors (not relevant to every type of event):

What

- What is the undesirable outcome?
- What occurred to create the undesirable outcome?
- What occurred prior to the precipitating event?
- What occurred following the precipitating event?
- What operational activities were under way when the tasks leading to the event occurred?
- What supplies/equipment were being used?
- What barriers should have been in place to prevent the undesirable outcome?
- What barriers were in place but failed to stop the undesirable outcome?

When

- When did the activities leading up to the event occur?

CNE questions

1. Which of the following is an effective way to identify post-discharge infections?
 - A. Screening laboratory results if the patient returns to the hospital or an ambulatory clinic.
 - B. Having quality professionals report possible cases to infection control.
 - C. Sending surveys to physician offices.
 - D. All of the above.
2. Which was the most successful approach used to reduce central line infections at Vanderbilt University Medical Center?
 - A. Empowering everyone at the bedside to stop a procedure if needed.
 - B. Using a checklist without education.
 - C. Implementing the new process in all ICUs simultaneously.
 - D. Educating staff that a procedure can only be stopped by a physician.
3. Of high-risk patients admitted to the ICU at St. Joseph Medical Center, what percentage are culture positive for methicillin-resistant *Staphylococcus aureus*?
 - A. Less than 5%.
 - B. About 10%.
 - C. About 20-25%.
 - D. More than half.
4. Which is accurate regarding San Ramon Regional Medical Center's experience with concurrent processes for core measure data collection?
 - A. It's nearly impossible to educate clinical staff in real-time.
 - B. The time burden of working with coders for complex cases is prohibitive.
 - C. Retrospective data collection results in higher compliance scores.
 - D. Missed opportunities can be prevented more effectively.

Answer Key: 1. D; 2. A; 3. C; 4. D.

CNE instructions

Nurses participate in this continuing education program by reading the issue, using the provided references for further research, and studying the questions at the end of the issue. Participants should select what they believe to be the correct answers, then refer to the list of correct answers to test their knowledge. To clarify confusion surrounding any questions answered incorrectly, please consult the source material. After completing this semester's activity with the **June** issue, you must complete the evaluation form provided in that issue and return it in the reply envelope provided to receive a credit letter. ■

- Was the facility on any special status at the time (e.g., emergency admissions only, high inpatient census, etc.)?
- Did the time of day or day of the week have an effect on the outcome? Staff availability?

Physician availability?

- For how many continuous hours had involved staff been working?

Where

- Where did the activities leading up to the

Figure 1: Partially Completed Barrier Analysis for IV Device-Related Infection

Problem: Patient developed infection at peripheral IV site			
What safeguards/controls were in place?	Did the safeguard/control work?	Why did the safeguard/control fail and what was its impact?	
Standards state the IV insertion site should be palpated for tenderness daily through the intact dressing	No	Standard does not state when and whom should do this. Task was not documented as being done daily.	
Before inserting, changing or dressing IV catheter, staff wash hands using an antiseptic-containing product	No	Random observation audits have confirmed less than 100% compliance. It is not known if noncompliance occurred with this patient.	
Staff wear clean gloves when inserting a peripheral venous catheter	Yes	Random observation audits have confirmed 100% compliance. It is presumed staff was compliant with this patient.	
Catheter site dressings changed every 96 hours	No	Time of IV re-insertion not documented — it is unknown if dressing was changed as required	
If inspection of the IV site or catheter change is necessary, the dressing is changed	No	Dressing change did not occur until 12 hours after IV site was first inspected. Failure to change dressing per standards may have contributed to event.	

Figure 2: Partially Completed Change Analysis for IV Device-Related Infection

Factors	Describe the Event-Producing Situation	Describe the Ideal or Event-Free Situation	What is the Difference?	What is the Effect of this Difference?
WHAT	Catheter not changed over guidewire once catheter-related infection was suspected; there was no actual evidence of local infection (e.g., purulent drainage, erythema, tenderness)	If catheter-related infection is suspected, but there is no evidence of local catheter-related infection, catheter is to be changed over a guidewire	Catheter not changed over guidewire as required by standards	Potential for introduction of bacteria at IV site
WHEN	Patient had off-unit exam during shift change. Need for IV tubing replacement may not have been communicated to next shift.	IV tubing replaced as required by standards.	IV tubing may not have been replaced as required by standards	IV tubing in place longer than usual (possibly up to 18 hours longer)
WHERE	IV re-inserted in post-anesthesia recovery unit	IV re-start not done in post-anesthesia recovery unit	Not usual location for IV insertion	Unknown
WHO	Patient experienced an IV site infection during previous hospitalization and this history was not documented in his current record	Patient has had no IV site infections in recent past	Physicians and staff unaware of patient's past history	Unknown
HOW	When IV was re-inserted in post-anesthesia recovery unit it was not labeled with the time — only the date and the nurse's initials	When IV is inserted it is labeled with date, time, and nurse's initials	No time documented for IV re-start	Unclear when IV tubing needed to be replaced. It may not have been replaced as required by standards

COMING IN FUTURE MONTHS

■ Boost scores for the toughest core measure requirements

■ What to do about misleading publicly reported data

■ The best ways to monitor hand hygiene compliance

■ Steps you must take *after* your Joint Commission survey

event occur?

- What were the physical conditions in the area(s)?
- Where was the event first identified?
- Was location a factor in causing the event?

Who

- Who were the direct/indirect people involved in care for the patient prior to the event?
- Which people were involved in caring for the patient following the event?
- What were the training/qualifications of the people involved?
- Who was supervising the activities?
- What patient factors might have increased the likelihood of the event? Which of these factors were controllable?

How

- Was the event caused by an inappropriate action?
- Did procedures exist for the activities/tasks involved?
- Are procedures based on literature evidence or "best practices?"
- Did the procedures related to the tasks have sufficient detail?
- Did the procedure have sufficient fail-safe mechanisms?
- Did the procedure cover work tasks in proper sequence?

Once the "event situation" and the "event-free situation" are described, the team evaluates the differences or variances to determine each factor's impact on the undesirable outcome.

If techniques such as barrier analysis and change analysis fail to uncover the root cause of the IV site infection, the team should turn their focus to how the patient was managed once the infection was first suspected. ■

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

Address: AHC Media LLC
3525 Piedmont Road, Bldg. 6, Ste. 400
Atlanta, GA 30305 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

EDITORIAL ADVISORY BOARD

Consulting Editor

Patrice Spath, RHIT

Consultant in Health Care Quality
and Resource Management
Brown-Spath & Associates
Forest Grove, OR

Kay Ball

RN, MSA, CNOR, FAAN
Perioperative Consultant/
Educator, K&D Medical
Lewis Center, OH

Janet A. Brown, RN, CPHQ
JB Quality Solutions Inc.
Pasadena, CA

Catherine M. Fay, RN

Director
Performance Improvement
Paradise Valley Hospital
National City, CA

Judy Homa-Lowry

RN, MS, CPHQ
President
Homa-Lowry Healthcare
Consulting
Metamora, MI

Martin D. Merry, MD

Health Care Quality
Consultant
Associate Professor
Health Management
and Policy
University of New Hampshire
Exeter

Kim Shields, RN, CPHQ

Clinical System Safety
Specialist
Abington (PA) Memorial
Hospital

Paula Swain

RN, MSN, CPHQ, FNAHQ
President
Swain & Associates
Charlotte, NC

CNE objectives

To earn continuing education (CNE) credit for subscribing to *Hospital Peer Review*, CNE participants should be able to:

- Identify a particular clinical, legal, or educational issue related to quality improvement and performance outcomes.
- Describe how the issue affects nurses, health care workers, hospitals, or the health care industry in general.
- Cite solutions to the problems associated with those issues based on guidelines from The Joint Commission or other authorities and/or based on independent recommendations from clinicians at individual institutions. ■

BINDERS AVAILABLE

HOSPITAL PEER REVIEW has sturdy plastic binders available if you would like to store back issues of the newsletters. To request a binder, please e-mail binders@ahcmedia.com. Please be sure to include the name of the newsletter, the subscriber number and your full address.

If you need copies of past issues or prefer on-line, searchable access to past issues, you may get those at www.ahcpub.com/online.html.

If you have questions or a problem, please call a customer service representative at **(800) 688-2421**.