Healthcare Benchmarks and Quality Improvement

The Newsletter of Best Practices

AHC Media LLC

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NOVEMBER 2008
VOL. 15, NO. 11 • (pages 109-120)

Debriefing process can strengthen process for critical incidents

High-risk areas such as the ED, ICU, OR may benefit the most

A new article in *The Joint Commission Journal on Quality and Patient Safety*[1] has provided evidence-based recommendations for a process that may be especially relevant in light of the recent spate of natural disasters: debriefing. While debriefings are commonly conducted to review staff performance following a disaster, the authors note that such a process also can have great value following any critical incident — especially in high-risk areas of the hospital such as the emergency department, the ICU, and the operating room.

In their article the authors lay out 12 evidence-based best practices and tips for a debriefing:

- Debriefs must be diagnostic.
- Ensure that the organization creates a supportive learning environment for debriefs.
- Encourage team leaders and members to be attentive of teamwork processes during performance episodes.
- Educate team leaders on the art and science of leading team debriefs.
- Ensure that team members feel comfortable during debriefs.
- Focus on a few critical performance issues during the debriefing process.

Key Points

- Although debriefings can be extremely short, they are shown to improve performance.
- Team leaders must create an atmosphere where members feel free to express their opinions.
- Quality managers can conduct "mini studies" to demonstrate the effectiveness of debriefings.

• Describe specific teamwork interactions and processes that were involved in the team's performance.

• Support feedback with objective indicators of performance.

• Provide outcome feedback later and less frequently than process feedback.

• Provide both individual and team-oriented feedback, but know when each is most appropriate.

• Shorten the delay between task performance and feedback as much as possible.

• Record conclusions made and goals set during the debriefing to facilitate feedback during future debriefings.

Healthcare Benchmarks and Quality Improvement (ISSN# 1541-1052) is published monthly by AHC Media LLC, 3525 Piedmont Road N.E., Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodicals Postage Paid at Atlanta, GA 30304 and at additional mailing offices. USPS# 0012-967.

POSTMASTER: Send address changes to *Healthcare Benchmarks and Quality Improvement*, P.O. Box 740059, Atlanta, GA 30374.

Subscriber Information

Customer Service: (800) 688-2421. Fax: (800) 284-3291. E-mail: customerservice@ahcmedia.com. Hours of operation: 8:30-6 Monday-Thursday, 8:30-4:30 Friday, EST.

Subscription rates: U.S.A., one year (12 issues), $549. Add $17.95 for shipping & handling. Outside U.S., add $30 per year, total prepaid in U.S. funds. Discounts are available for group subscriptions, multiple copies, site-licenses or electronic distribution. For pricing information, call Tria Kreutzer at 404-262-5482. Missing issues will be fulfilled by customer service free of charge when contacted within one month of the missing issue date. **Back issues**, when available, are $92 each. (GST registration number R128870672.)

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"These debriefing principles come from research in aviation, the military, and crisis management organizations," explains **Eduardo Salas**, PhD, Pegasus Professor of Psychology at the University of Central Florida in Orlando and lead author of the article. "We know from our findings that teams that engage in a debriefing perform better [in the future] because they learn. It is a key component, especially for teams, to evaluate what happened and what can improve, what the weaknesses were, and set goals for better performance."

A debriefing, he says, differs significantly from a root-cause analysis. "To be useful, it has to happen right after the incident or critical event, although depending on the nature of the situation, it can be a couple of days," says Salas. A debriefing, he adds, has to be not only timely, but also developmental.

"When a team discusses a weakness, they have to come up with a remediation task," he says, adding that the debriefing also must be diagnostic. "Saying we have a communication problem is not sufficient; that's' a big bucket," he emphasizes. "A debriefing really helps you understand what led to what."

"What we expect is for the presenter of the case to present all the factual information," adds co-author **Jeffrey S. Augenstein**, MD, PhD, professor of surgery at the University of Miami and director of the Ryder Trauma Center, who notes that his facility has computerized records, so if there are questions they can refer to it. "We really try to figure out if the outcome that was less than perfect was related to a process problem, an error, and so forth, and then try to put things in place to correct those problems," Augenstein says.

Make it happen

Salas concedes that holding a debriefing as quickly as possible after a critical incident (which he defines as "any event that may cause harm by the actions done by the team or failure of the team to prevented harm") is a challenge for medical professionals with hectic performance requirements. "In health care, especially in ORs and ERs, where you have very busy nurses and physicians, the work load can serve to prevent them from really engaging in this discipline," he observes."But my sense is it still needs to happen right after the event, even if it's only a couple of minutes, or half an hour."

Salas continues: "I've seen some good debriefs

take a minute and a half; the team goes directly to the key issue and then right to the developmental stage. Of course, I've also known some to take two hours."

Salas recalls one successful debriefing. "There was a miscommunication in the OR, and after they went out of the room the surgeon called a brief huddle, brought the issue up, and was supported by a nurse who said it shouldn't have happened. Next, he asked the team how they could self-correct the problem."

One or two suggestions were put forth, says Salas, and the surgeon recommended that those changes be incorporated into the protocols. "The surgeon opened up the channels of communication so everyone could speak up, they came up with recommendations, they were accepted by the team, and they went on," he says.

Augenstein recalls an event that occurred a number of years ago. "A patient came to one of our ICUs and had an injection of a material that was less than optimal because the vials were somehow not marked," he relates. "The patient had an adverse outcome, and immediately a new process was put in place where you couldn't bring things into the OR without clearance; everything around the operating table had to be marked where it was." This process change, he says, occurred "literally overnight."

Augenstein says he has seen many effective debriefings in aviation and military settings, and they all contained the same element. "The team leader acknowledges something went wrong and the team needs to do better. The team leader opens up and sends a signal that it's OK to talk about 'our' mistake."

Promoting debriefings

If debriefings are not common practice in a particular facility, says Salas, the quality manager is the one who ought to promote them. "They can create incentives, train people, and send signals that debriefings are a good way for a team to learn about their mistakes," he advises.

Beyond that, he says, the whole hospital leadership team should be involved. "I know hospitals in Florida that put up posters right inside or just outside the OR," he shares. "They highlighted the five things a team needs to talk about after an event; the team huddles next to the sign and debriefs."

It is best if the message comes from the top that mistakes do get made, but that medical teams need to improve, and that there will be no punishment involved, says Salas.

It should not be difficult, he continues, for the quality manager to "sell" upper management on the concept. "Just show them the science that demonstrates debriefing works and generates performance improvement," he advises. In addition, he says, you can do small qualitative and quantitative studies in your own hospital. "You'll be able to say, 'This team spent just three minutes discussing a problem, and look what happened!'" Salas offers, "So if they do not believe the outside data, call a 'mini study' where you can show these things make a difference."

Reference

1. Salas E, Klein C, King H, Salisbury M, et al. Debriefing Medical Teams: 12 Evidence-Based Best Practices and Tips. *Jt Comm J Qual Patient Saf.* September 2008, Vol. 34, No. 9: 518-527.

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AHRQ director: 'We are not doing enough' on quality

Notes slowdown in improvement, while costs soar

Carolyn M. Clancy, MD, director of the Agency for Healthcare Research and Quality (AHRQ), did not pull any punches when she gave the keynote plenary address on Sept. 8 at the 2008 AHRQ Annual Meeting — nor did she hold back in a follow-up interview with *Healthcare Benchmarks and Quality Improvement*.

Key Points

- Most of the "easy" things have been addressed; now the real work begins.
- Increasing patients' involvement in their own care will improve quality and safety.
- Collaboration among staff members is critical for necessary changes to be made.

"The rate of improvement in quality — which has been consistently slow anyway — has gone down," she reported in her address, citing the National Healthcare Quality Report, which indicated that quality improved by 3.1% in 2006, but only by 2.3% in 2007.

Why is the rate of improvement slowing down? "There are a couple of reasons," says Clancy. "One is that the science of measuring quality has evolved and improved, and there is more public reporting. I think we can expect the data will show a slight decline at first because we are getting better at defining the problem."

However, she continues, "It also shows we are not doing enough to reverse important trends. In our annual report on the quality of care we send to Congress each year we saw improvements in patient safety had slowed way down." This is not a recent trend, she adds. "We can look back to the mid-90s; things improve until about 2000 and then slowed down," she notes.

In addition, she says, "There's a disconnect between the way the overall rate of quality improvement is slowing and the rate at which costs are increasing (6.7%).

"We are spending money a lot faster without improving, and we have to find a way to link the quality bottom line to the financial bottom line."

The third factor says Clancy, is that "we have done the easy stuff, and now we're getting to the harder parts," among them transitioning to patient-focused care. "Also, most public reporting efforts have been incremental, starting with small measures and then adding more," Clancy notes. "When we have a small list of things to report, the natural tendency is to deploy a team to the ED, for example, and make sure patients get their antibiotics within the designated time. As there are more and more things to measure, it's clear we have to step back and make the right thing the easy thing, with system changes."

For example, she notes, top leadership engagement is imperative. "There are cutting-edge hospitals where the CEO walks around with the staff," she notes. "And those hospital boards that have subgroups getting regular quality reports tend to do better."

This is a new skill set for board members, and it will be even more important in the future, says Clancy, who notes that this can be a key role for the quality manager to play."I think they are in the best position to help make the business case for quality, because they have the data," Clancy explains. "They also have a clearer view into how people provide care, and the impact of what they do, which will be a very, very critical role. "

Some of the 'hard' things

The transition from provider-focused care to more patient-focused care "is high on my list," Clancy told the attendees at the AHRQ meeting, and AHRQ is doing its part to help make that transition. "We have promoted the 'Five Steps to Safer Health Care' for several years," she says. "We launched a campaign with the American Hospital Association and the American Medical Association, but I do not think it's hard-wired yet, though it is a big first step." (To access the "Five Steps to Safer Health Care," go to: www.ahrq.gov/consumer/5steps.htm.)

This shift in focus does not occur in a vacuum, Clancy notes. "You hear from people who have worked on specific improvement initiatives all the time," she relates. "They get all the team members together, decide on a list of things they all agree are critically important, and make them routine. It could be standing orders or flexibility for nurses. When those steps have been put on the wall of the patient's room, the patient becomes part of the team. They may say, for example, 'Oh, I'm getting out of bed today.' When patients are better informed, they will be more equipped to ask all the right questions at discharge, know what to do when they go home, and so forth."

Collaboration 'is huge'

As indicated in the example above, Clancy believes that collaboration "is huge." Clancy says that "if you pick up a hospital chart today, you could see notes from the nurse, the doctor, the pharmacist, the nutritionist, and the physical therapist. Oftentimes you will think these people are talking about different patients."

It's often evident, she continues, that these people are not reading each other's notes. "The bottom line," she says, "is that getting to great care is a team sport."

Again, she notes, the role of the quality manager is pivotal because they have the data. "They can bring the players together and say, 'Look, you have dropped the ball and we need to work together,' because they don't have a dog in the

fight," Clancy explains.

Clancy notes three other major areas of emphasis that can help boost the rate of quality improvement:

• Greater focus on outcomes: Clancy cites an article published recently by two AHRQ colleagues that said preventable surgical errors cost employers $1.5 billion a year. "In some cases they increase the cost of care by 100%," she notes. Much of the solution lies in better discharge instructions and better follow-up.

"I think what we will see in the very near future is increased pressure from the public and private payers to [penalize] avoidable readmissions," Clancy predicts. She notes this is easier said than done, but again AHRQ is providing tools through its "Health Innovations Exchange" (www.innovations.ahrq.gov). "It lets people know what works and, frankly, what doesn't," notes Clancy.

• Greater focus on health literacy: "Everyone has got to be more attentive to health literacy; even if you have the best instructions in the world, if the patient does not understand them, you can drop the ball in a big way," says Clancy. Quality managers, she says, can work with those who create the discharge instructions to make sure they are "more meaningful than check-off boxes." The AHRQ web site also has tools to use with patients who have limited health literacy (www.ahrq.gov/browse/hlitix.htm).

• Greater focus on multiple chronic conditions: "This is a huge, huge challenge of unbelievable importance," says Clancy. "These are the groups we provide the worst care and spend the most money on." There is a great deal known about the individual diseases, such as heart disease, arthritis, diabetes, and so forth, she says, "but unfortunately, the patient could have all of those."

Here again, she says, the "team sport" approach becomes critical. "The quality manager might be in a position to coordinate with the multiple specialists and ask who the 'quarterback' is going to be," she suggests. "Who's going to be following the patient when they are discharged?" They may literally need to physically bring them together in person, or by phone, Clancy suggests, "This is much harder than it should be," she says.

The good news, Clancy says, is that every provider and all health care organizations want to do the right thing. "However," she concludes, "we still have a long way to go to make the right thing the easy thing to do."

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NQF endorses standards for non-physician clinicians

Move expected to impact care in outpatient centers

The National Quality Forum (NQF) has endorsed 67 clinician-level consensus standards related to cancer care, infectious diseases, perioperative care, and care provided by thousands of medical professionals who are not MDs.

"This is a specific set of measures for practitioners that can bill Medicare," says **Helen Burstin,** MD, MPH, senior vice president for performance measures, noting that covered clinicians include, among others, physical therapists, occupational therapists, podiatrists, clinical psychologists, and social workers.

This large group of non-physician clinicians hasn't "been brought in [to the standards process] before," Burstin adds.

NQF also endorsed four facility-level measures in surgery and anesthesia, 17 measures addressing prevention and management of stroke across the continuum of care, and three measures for influenza and pneumococcal immunizations — for a total of 91 consensus standards.

Experts say standards needed

Clinical experts engaged by NQF to serve on steering committees to develop the standards emphasized the need for these measures in prepared statements. "There's an overwhelming amount of misinformation about what constitutes

Key Points

- This marks first time NQF brings non-physician providers into the standards process.
- Hepatitis, HIV/AIDs also are addressed by standards for first time.
- Practitioners who fail to meet the new standards cannot participate in the PQRI.

good care," says **Suzanne Miller**, MD, director of behavioral medicine at the Fox Chase Cancer Center in Pennsylvania and co-chair of the steering committee on clinician-level cancer care. "Quality measures, particularly at a clinician level, pave the path for communicating with patients and providing patient-centered care in a comprehensive way."

For the first time, NQF standards are addressing HIV/AIDS and hepatitis. "Given the known gaps and variations in care for patients infected with HIV/AIDS and hepatitis B and C, it is imperative that the medical community begin to systematically measure itself at the individual clinician and system level to identify where improvement efforts are needed," says **Fred Rachman**, MD, CEO and chief medical officer at the Alliance of Chicago Community Health Services, who co-chaired NQF's steering committee on clinician-level infectious diseases.

"The NQF process is instrumental for endorsing a single set of consensus standards that will help alleviate the multiple, competing sets of measures for HIV/AIDS and hepatitis against which clinicians are currently measured. This supports our ultimate aim — a uniform standard of care that every consumer can expect."

According to NQF, these new standards "will fill gaps in assessing clinician performance." Says Burstin: "They are specifically being done as part of [The Centers for Medicare & Medicaid Services'] effort to have measures available for these practitioners. [If they fail to meet them] they cannot participate in the PQRI [Physician Quality Reporting Initiative] program." Under the program, clinicians can earn bonus payments — or be penalized — based on how their performance is rated.

Burstin adds that for quality managers, the standards "offer additional quality measures — particularly for those who practice in outpatient and related clinics. So, for example, they would speak to the quality of care provided by physical therapists associated with the hospital in outpatient clinics."

To read the full specifications for all of the new NQF-endorsed voluntary consensus standards, as well as NQF's research recommendations, go to: www.qualityforum.org.

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Antibiotic stewardship programs curb resistance

Using PharmDs and data to quell HAIs

Which came first: the chicken or the egg? Likewise, are what the Centers for Medicare & Medicaid Services labels "never events" really never events if they happen? The philosophical ramblings on this are endless, and whether these events are eradicable, it's become a reality this month that if a patient acquires an infection in your hospital, your hospital will be footing the bill. And whether or not you can eliminate infections, it is incumbent now that you find effective and cost-appropriate ways of dealing with them.

Data tracking measures, mandatory reporting requirements, and no-pay rules for hospital-acquired infections (HAIs) put the issue front and center this month, and in the absence of what many see as clear guidelines on prevention, it is every hospital for itself in determining best practices to deal with HAIs, and to do it cost-effectively.

Antimicrobial stewardship programs are one of the hot trends, and VHA Inc. and Premier Inc. have rolled out measures to help hospitals manage their own infection patterns. According to health care attorney and blog author **David Harlow**, hospitals involved in programs such as these "are on the cutting edge, and anyone who's not involved in a program like that through a purchasing association or otherwise is going to have do that soon because they're going to have to address every way of reducing hospital-acquired infections."

What he refers to as once "fringe behavior" — that is, the move to avoid overuse of antibiotics — is going to become much more crucial. And that is what these programs are banking on.

An article in the Feb. 14 issue of the *Journal of Antimicrobial Chemotherapy*, reads: "Antibiotic use is widely accepted as being responsible for the selection and maintenance of antibiotic resistance. It is less obvious, however, that it is also responsible for increasing transmissibility and pathogenicity of many multiresistant bacteria and may actually be increasing the number of hospital-acquired infections. Antibiotic stewardship should be given much more emphasis in the fight against HAI."[1]

Robert Pickoff, MD, MMM, chief medical officer at Hunterdon Medical Center in Flemington, NJ, says the hospital was looking into how to address the sensitivity patterns of bacteria at the

Key Points

- Antibiotic stewardship programs gain favor in fight against HAIs.
- PharmD intervention with medical staff crucial.
- Educate doctors about antibiotic choices.

facility when VHA approached them about being a test site for its antibiotic stewardship "Bugs and Drugs" program.

As part of its participation, Pickoff worked with John Gums, PharmD, professor of pharmacy and medicine at the University of Florida, who helped create VHA's antimicrobial resistance database, which participants can use to review resistance patterns and to benchmark them regionally or nationally. "[Gums'] interest," Pickoff says, "was in taking hospital information, that is the pattern of antibiotic use and the antibiogram, which is the resistance and sensitivity patterns of the bacteria in the hospital, and analyzing the data to see what could be done to reverse the trend of rapidly increasing resistance."

In implementing the recommendations it received from Gums, Hunterdon brought on doctoral-level pharmacists affiliated with Rutgers' teaching faculty and Hunterdon's own pharmacy residency program to work in sync with the medical staff. Pickoff credits this interaction as being critical to the success the facility would have.

Each hospital must make its own priorities in stemming the tide of resistance, Pickoff says. Hunterdon chose Cipro as its first target and in studying its resistance patterns created guidelines for the drug's use as an empiric therapy. The outcome was an order form for physicians. When an antibiotic is ordered, the doctor has to indicate "whether it is empiric or therapeutic, what cultures were done, and what the results were," he says. The doctoral-level pharmacists then review the form and make suggestions as needed on the antibiotic chosen for treatment.

Pickoff says the test case examined two specific bacteria against Cipro. "We showed a sensitivity for two bacteria," he reports, "*Klebsiella* and *Pseudomonas*, and in one case, the sensitivity went up from 21% to 54% and in the other it went from 51% or so to 79%."

On the docket now is how these interventions might affect cost and even throughput. "We're looking now at the effect of appropriate antibiotic use on length of stay and cost per case. We think that by using antibiotics appropriately, we are going to be able to effect change," Pickoff says.

He reiterates the PharmD intervention in the success with the Cipro case. "That's the intervention that has made the difference" — that is, the back and forth communication and the educational aspect. "In addition to having these PharmDs making rounds in the intensive care unit with the intensivists on a daily basis, it's also interacting with the physicians and nurses and affecting change in the use of antibiotic therapy. The combination of those and the team approach is what we think is key to the success we've had in reversing the tide of resistance to Cipro."

Now, it's on to another antibiotic of choice for Hunterdon as it tries to replicate the success it had with its first case. But Pickoff says interventions can never be successful if they only happen in the hospital. Any strategy that's worth its weight must include the community, of which the hospital is only a part.

"One thing we've learned is that if you want to effect change inside the hospital," he says, "you really have to go outside of the walls of the hospital to influence what's being done in the community. Because if you get a patient in from the community already having resistant patterns... the hospital inherits those resistance patterns and it becomes a pattern of the hospital."

And it's not only the community at large, but in the primary care setting. When outpatient facilities in the primary care network involved with the hospital use electronic prescription writing, Pickoff says, they're also able to interact with the PharmDs "just as much as the inpatient physician does in terms of the advice for antibiotic choices and taking advantage of that advice."

Reference

1. Gould, IM. Antibiotic policies to control hospital-acquired infection, *J Antimicrob Chemother* February 2008. doi:10.1093/jac/dkn039. ■

Reversing the trend of resistant infections

Cutting costs with automated screening

"It was pretty primitive, what we were doing," says **Sarah Bland**, RPh, senior clinical pharmacist, Center for Drug

Policy at the University of Wisconsin Hospital and Clinics, referring to the method of screening drug orders before she began to use Premier Inc.'s web-based tools.

"I would print from the pharmacy billing system a list of patients who were on a dozen different antibiotics we were targeting for reasons of high cost and high risk in terms of resistance. It wouldn't tell me how long they had been on them. It was time-consuming, and I couldn't really look in depth."

Saving time with automated surveillance

That was before Premier Inc. pitched an automated system to flag positive culture results and screen pharmacy data to the hospital's infection control department. With the new system, Bland says, instead of being able to look at only a dozen or so drugs, she could screen all antibiotic orders if she thought it necessary or at least screen orders that raise concern — for instance, patients who have been on vancomycin for three days.

In trying to identify candidates at risk for infections, clinicians can spend two to five hours a day sifting through paperwork, says Premier's **Scott Pope**, PharmD, national director for SafetySurveillor, a web-based tracking tool.

With the product in hand, Bland and an infectious disease physician set up the parameters they wanted to track. For instance, they wanted to be alerted each time a broad-spectrum drug was ordered for a gram-negative organism, because as she explains, there "aren't really any new drugs in the pipeline for gram-negative organisms so we want to hold on and conserve those drugs very tightly."

Once she is flagged about the order, she can review the patient's medical record to determine if the prescription is appropriate. If she thinks it is, she can then review the culture after three days. "Now I want to look when the cultures are back, is it appropriate? Does the patient have an organism based on the culture results that justifies the continued use of the drug?" She continues to receive alerts in these cases to determine if the treatment period has been sufficient or if it's necessary to run the patient on a full course.

While "it may not be a significant change for the individual patient," she says, "since that patient is going to get better whether they hit eight days, 10 days, or 12 days, but if I can get eight days maybe some future patient is going to be better off."

Key Points

- Set up alerts for at-risk patients.
- With antibiotic trend patterns, cost per admission in terms of antibiotics dropped 10%.
- Narrowing coverage in using antibiotics critical.

And that's where tight screening pays off, she says. She acknowledges that if a patient develops a hospital-acquired infection (HAI) the hospital will not receive reimbursement but points out that since the hospital is paying it's better to not pay for the care of a resistant and more time- and resource-consuming infection.

Every day Bland runs a report and goes through the 60-90 alerts she might get. Going through those, she whittles the cases down to about 15 that need follow up. In concert with the infectious disease physician, she narrows that list further to identify ones that require intervention.

Relaying this to the unit pharmacist, physicians get recommendations on drug coverage such as warnings about redundant coverage or switching from IV to oral therapy — "simple cost-saving measures," Bland says.

Measures that add up.

Reducing cost per admission

Bland is analyzing "whether we've been able to stem the tide of resistant organism development" and has found that the cost of antibiotics had been increasing at about 10-15% before the implementation of the tracking tool. "We were able to stop that cold," she says. "In fact, we've been able to actually reduce the cost per admission in terms of antibiotics by about 10%" by reducing the "cost of antibiotics in terms of percentage of the overall drug budget."

Beyond the financial success, though, she adds that the real benefit to curbing resistance is that "when you're reducing antibiotic use, you're reducing the pressure on the microbe environment in the hospital and thereby you're going to be able to reduce resistance in the hospital."

What does she credit for the success they've had and their "pretty stable" antibiogram? "It's a combination of good infection control practices, good Antibiotic management, keeping patients well isolated, and keeping antibiotic use to a minimum," she says.

Narrowing coverage, Bland says, is integral to

reducing resistance. Other suggestions she offers:

• keep antibiotic use limited to what's appropriate and the appropriate length of time;

• dose appropriately;

• don't forget cases in which you're running antibiotics, which happens Bland says because side effects from that are not necessarily noticeable.

As far as wiping those infections out of hospitals, Bland says: "You're not going to eradicate a hospital-acquired infection. You're not going to eliminate the possibility that all of your patients will not pick up an infection. But I think you can lessen the risk that you're going to have some highly resistant organisms with good infection control and good antibiotic management."

For smaller, standalone hospitals that can't afford technology like Premier's, she suggests starting any automated system and allowing that system to sort through the drug orders. "Don't waste your personnel going through and sorting the orders, the sort of thing a microprocessor can do," she adds.

"Have an education component every so often to not abuse antibiotics. Inappropriate antibiotic use is just a lack of familiarity or a fear of not covering appropriately. If people have the right information, they will do the right thing." ■

Oversight group holds RCA teams accountable

Don't let process get off track

The Joint Commission requires a "thorough and credible" root cause analysis (RCA) for all Sentinel Events, but the process is sometimes less effective than hoped. Quality leaders at the Mayo Clinic came up with a novel solution: An oversight group to keep the process on track.

The teams assigned to perform RCAs are scheduled to meet with the hospital's Safety Advisory Panel a minimum of two times, and more if needed.

"It is through these dialogues, as well as through periodic written reports, that we monitor the teams' progress," says **Bridget Griffin,** MPH, the hospital's sentinel event program coordinator.

From the very beginning, the team knows it must have a measurement strategy to determine if the intervention was successful or not. Before an event is closed, the measurement data must be assessed and shared with the Safety Advisory Panel.

Key Points

- Allow Safety Advisory Panel to review all data before closing event.
- Encourage RCA teams to dig deeper.
- Hold RCA teams accountable.

Here are some benefits:

• The Safety Advisory Panel provides moral support for the teams working on interventions.

"The teams know that someone believes in what they are doing," says Griffin.

• The panel provides access to resources that the teams may not have known about, and/or may not have been able to access on their own.

"The expertise of the engineering department to help redesign or enhance a device, or of the Simulation Center in setting up a new training model, are both examples of such resources," says Griffin.

• The panel pushes the teams to think outside of the box and stretch themselves, in terms of interventions and measurement strategies.

An example of this is encouraging teams to begin looking closely at their near-miss data. "When possible, they need to monitor and assess those incidents that did not reach the patient, where harm did not occur under the same circumstances, and to ask why it did not occur," says Griffin.

• The panel reviews intervention plans early enough to be able to influence their direction.

"Occasionally, the panel will uncover a stated root cause that really isn't a root cause, but is actually a contributing factor," says Griffin.

Other times, they will uncover a root cause for which there are no interventions that directly tie back to it. The panel has also discovered interventions already underway that are not tied to the root cause. "For example, sometimes education and training is well intended but does not address the root cause," says Griffin.

• The panel assists teams in thinking through the measurement strategy, occasionally spotting less than robust strategies. Advice is given on how to improve these.

"The panel has a finger on the pulse of what else is happening across the institution, so we don't reinvent wheels," says Griffin. "In the end, the panel holds the teams accountable to do and to measure what they tell us they are going to do and measure."

Some improvements that were made as a result of the RCA process include:

- Engineering worked with nursing to design a connector clip to be used with dialysis tubing.
- Pharmacy added medications to its "look alike/sound alike" computer-based alert system.
- The Simulation Center developed new training scenarios.
- Human factors and ergonomics assessments were completed in procedural and storage areas.

The panel is responsible for ensuring that teams identify measurement strategies and collect outcome data.

"However, our root cause analysis process is owned by the departments involved in a root cause analysis," says Griffin.

The departments are responsible for identifying and implementing viable interventions and ensuring that the gains are sustained. "It is the responsibility of the panel and the sentinel event program staff to ensure that teams understand this from the start," says Griffin.

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Improving surgical outcomes with data tool

Keep your finger on the pulse with objective data

The National Surgical Quality Improvement Program (NSQIP) began in 1994 in response to concern over the quality of care, specifically operative mortality rates, in VA hospitals. Since then it has expanded to all hospital settings and come under the auspices of the American College of Surgeons (ACS).

When **Pierre Saldinger**, MD, FACS, chairman of the department of surgery at Danbury Hospital (CT) came across the NSQIP booth at an ACS annual hospital, he decided to compel his administration to sign up for it and the hospital became one of the first outside of the initial pilot to participate. His intention was to find "a database or system that would help me do objective data measurement" and he says he found it with NSQIP.

When Danbury sends its data to NSQIP, they are all blinded and are benchmarked against data the organization already has on the 200 or so participating hospitals. Saldinger can choose to run reports "on any permutation" he wants — surgeon-specific, procedure-specific or by hospital category according to admission, scope, or bedside. And twice a year, he gets a risk-adjusted assessment of the data. This is what makes the difference, he says, setting the data apart as more objective, more useful.

When you go through the peer review process, he says, the "bottom line" of the resulting data is that "we don't know because it may be a blip or it may be real, but with those data there's really no way to tell."

The risk-adjustment, he says, eliminates that variable. "I think honestly this is the only way to track performance," Saldinger says. "It's independent, it's objective, all the complications are defined." The ACS audits the data once a year, and hospitals are allowed only a 5% discrepancy.

Crucial to the program is what NSQIP refers to as a clinical nurse reviewer. Only the nurse and Saldinger are privy to the data returned from ACS. Instead of placing her in the department of surgery, Saldinger decided to place her in the performance improvement department, where she would have more team support. She is jointly accountable to Saldinger and the chief risk officer. The three meet monthly, and he says the collaboration has been key.

Currently, Danbury has a module for both the general vascular surgery department and its bariatric surgery program. Saldinger culls data on "anything from wound infection, which has a lot of traction these days; to DVTs; to renal failure; reintubation; prolonged intubation; cardiac events" and all of these within 30 days.

The other part, he says, is it is combined with the hospital's peer review process. For instance, he says, "we had a surgeon who had a cluster of complications in a short period of time, which throws everyone into a loop and everyone gets nervous and excited about it." They compared that surgeon with a similar profile in terms of cases and complication profile. "And other than the fact that they came clustered in time, they had an almost identical profile. So now you can say, we'll keep monitoring but there doesn't seem to be a problem. It's just bad luck."

In searching through the data he and the nurse reviewer receive, Saldinger says they come across

Key Points

- Risk-adjusted data: Is it more valuable data?
- Nurse reviewer critical to NSQIP process.
- Get docs on board with NSQIP by explaining how data are used.

other discrepancies that wouldn't have been revealed. "If you present that to the hospital administrator," he says, "that will resonate right away because of Joint Commission readiness and the stuff that goes along with that."

Keeping your 'finger on the pulse'

Because he can pull data on any time for any measure he deems necessary, Saldinger says participation in the program allows him to "constantly keep his finger on the pulse."

One of the things his team is looking at is if they should get a cardiology workup for surgery and if it's currently applied in the right way. Who makes that decision and whose discretion it is are the indicators he's looking at.

He also says "now there's a big emphasis on normathermia so we've got an initiative to maintain body temperature, particularly in colorectal surgery. The whole initiative that pertains to glycemic control is all part of the surgical site infection and even though we're low, we want to stay that way."

The NSQIP program is closely tied to the Surgical Care Improvement Project (SCIP) measures. Saldinger says his team found they weren't doing as well as they would have liked on those. So they went to the data gatherers to find out how data were collected and noticed "for the most part, it was a lack of documentation and and processes."

In response, they created an order form for preop orders according to the SCIP measures. Only one antibiotic is listed for a variety of surgeries and if a doctor selects another, he or she has to explain why that decision was made. All the DVT prophylactic measures are included as well as beta-blockers. Documentation during surgery as to the DVT prophylaxis, one of the measures, is now also done.

Now they are reviewing their preop processes as their data show part of the problem is they have a low threshold in getting duplex ultrasounds postoperatively.

The cost factor

Beyond the annual fee, the program calls for an FTE, "which [together] generously calculated," Saldinger says, "could go anywhere from $150,000 to $200,000 a year." As the physician champion, it was Saldinger's task to sell the program to administration. While he admits it is difficult to show direct returns, he can show administrators how, for example, if you can lower your wound infection incidents that will lower your costs, especially as Medicare no longer will pay for infections acquired in the hospital.

The private and faculty surgeons have agreed to let him look at their records, "which I felt was a big step and show of trust." Knowing that only Saldinger and the nurse reviewer have access to those data also helps in making physicians feel secure. With the multifactorial problems they face, he says, "you need to know how to navigate the system so as not to alienate people but at the same time be able to convey a problem in an objective fashion that will lead to people stepping up to the plate to contribute to performance improvement."

"I really had to convey to my department and the surgeons who participate that this is not big brother watching you." You don't want to force anyone into participating, and you don't want anyone to feel that the data will be used in a punitive fashion, he adds.

He says quality improvement personnel can be viewed as "bad people" or as "spies."

"It's a very sensitive topic, very sensitive if you give surgeons any inkling that [the data] could be used in any other way than advertised, they will not participate and your project is damned," he says. ■

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Statement of Ownership, Management, and Circulation

1. Publication Title	2. Publication No.	3. Filing Date
Healthcare Benchmarks and Quality Improvement	1 5 4 1 - 1 0 5 2	10/1/08
4. Issue Frequency	5. Number of Issues Published Annually	6. Annual Subscription Price
Monthly	12	$549.00

7. Complete Mailing Address of Known Office of Publication *(Not Printer) (Street, city, county, state, and ZIP+4)*
3525 Piedmont Road, Bldg. 6, Ste. 400, Atlanta,
Fulton County, GA 30305

Contact Person: Robin Salet
Telephone: 404/262-5489

8. Complete Mailing Address of Headquarters or General Business Office of Publisher *(Not Printer)*
3525 Piedmont Road, Bldg. 6, Ste. 400, Atlanta, GA 30305

9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor *(Do Not Leave Blank)*

Publisher *(Name and Complete Mailing Address)*
Robert Mate, President and CEO
AHC Media LLC, 3525 Piedmont Road, Bldg. 6, Ste. 400, Atlanta, GA 30305

Editor *(Name and Complete Mailing Address)*
Jill Robbins, same as above

Managing Editor *(Name and Complete Mailing Address)*
Russ Underwood, same as above

10. Owner *(Do not leave blank. If the publication is owned by a corporation, give the name and address of the corporation immediately followed by the names and addresses of all stockholders owning or holding 1 percent or more of the total amount of stock. If not owned by a corporation, give the names and addresses of the individual owners. If owned by a partnership or other unincorporated firm, give its name and address as well as those of each individual. If the publication is published by a nonprofit organization, give its name and address.)*

Full Name	Complete Mailing Address
AHC Media LLC	3525 Piedmont Road, Bldg. 6, Ste 400 Atlanta, GA 30305

11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check box → ☐ None

Full Name	Complete Mailing Address
Thompson Publishing Group Inc.	805 15th Street, NW, 3rd Floor Washington, D.C. 20005

12. Tax Status *(For completion by nonprofit organizations authorized to mail at nonprofit rates.) (Check one)*
The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes:
☐ Has Not Changed During Preceding 12 Months
☐ Has Changed During Preceding 12 Months *(Publisher must submit explanation of change with this statement)*

PS Form **3526**, September 1998 *See instructions on Reverse)*

13. Publication Name: Healthcare Benchmarks and Quality Improvement
14. Issue Date for Circulation Data Below: September 2008

15. Extent and Nature of Circulation			Average No. of Copies Each Issue During Preceding 12 Months	Actual No. Copies of Single Issue Published Nearest to Filing Date
a. Total No. Copies *(Net Press Run)*			432	286
b. Paid and/or Requested Circulation	(1)	Paid/Requested Outside-County Mail Subscriptions Stated on Form 3541. *(Include advertiser's proof and exchange copies)*	172	185
	(2)	Paid In-County Subscriptions *(Include advertiser's proof and exchange copies)*	0	0
	(3)	Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution	5	6
	(4)	Other Classes Mailed Through the USPS	17	33
c. Total Paid and/or Requested Circulation *(Sum of 15b(1) and 15b(2)*			194	224
d. Free Distribution by Mail *(Samples, Complimentary and Other Free)*	(1)	Outside-County as Stated on Form 3541	9	12
	(2)	In-County as Stated on Form 3541	0	0
	(3)	Other Classes Mailed Through the USPS	0	0
e. Free Distribution Outside the Mail *(Carriers or Other Means)*			13	0
f. Total Free Distribution *(Sum of 15d and 15e)*			22	12
g. Total Distribution *(Sum of 15c and 15f)*			216	236
h. Copies Not Distributed			216	50
i. Total *(Sum of 15g. and h.*			432	286
Percent Paid and/or Requested Circulation *(15c divided by 15g times 100)*			90%	87%

16. Publication of Statement of Ownership
Publication required. Will be printed in the November 2008 issue of this publication. ☐ Publication not required.

17. Signature and Title of Editor, Publisher, Business Manager, or Owner: President and CEO — Date: 9/27/08

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