Chasing Zero: Our Journey to Preventing Surgical Site Infection

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ABSTRACT

After an increase in methicillin-resistant Staphylococcus aureus infections was discovered at a health care facility in Arizona, a multidisciplinary team convened to investigate the underlying problem and work toward eliminating surgical site infections. The team investigated environmental factors, held inservice sessions to reinforce sterile technique, and made important changes to the facility culture in efforts to eliminate surgical site infections. The team’s efforts were put into practice on October 30, 2008, and only one surgical site infection was identified in the following seven months. AORN J 91 (February 2010) 224-235. © AORN, Inc, 2010

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Health care-associated infections (HAIs) are a significant public health issue. In 2002, the estimated number of HAIs in US hospitals was approximately 1.7 million, with estimated deaths associated with HAIs at 98,987.1 Of those deaths, 8,205 were attributed to surgical site infections (SSIs).1 By definition, an SSI is an infection that develops within 30 days after a surgical procedure or within one year if an implant was placed and the infection appears to be related to the surgery. Postoperative SSIs are the most common HAIs in surgical patients, occurring in up to 5% of this population.2 In the United States, between 500,000 and 750,000 SSIs occur annually.2 Patients who develop an SSI require significantly more medical care. A patient with an SSI is 60% more likely to spend time in the intensive care unit after surgery than an uninfected surgical patient, and the development of an SSI increases the hospital length of stay by a median of two weeks.2 The risk continues after discharge; an SSI develops in almost 2% of patients after discharge, and these patients are two to five times more likely to be readmitted to the hospital.2

Across the nation, hospitals are being encouraged to eliminate the occurrence of SSIs by organizations such as the Institute of Healthcare Improvement with its 5 Million Lives Campaign3 and the Association of Professionals in Infection Control and Epidemiology (APIC) with its Targeting Zero initiative.4 The APIC urges all health care institutions to pursue a rate of zero HAIs by using resources and making cultural changes that support this effort. In addition, reimbursement rules instituted by the Centers for Medicare & Medicaid Services (CMS) in 2008 that deny...
reimbursement for health care-associated conditions have challenged health care workers, including perioperative nurses, to carefully examine their infection control practices. The CMS and private insurance companies are strongly recommending that hospitals across the nation put infection prevention front and center if they want to remain competitive.

At first glance, targeting zero may seem like a “mission impossible.” Many infection preventionists would agree that adhering to guidelines from the Centers for Disease Control and Prevention (CDC) and various other organizations, as well as developing a concise action plan for preventing SSIs, can be a little overwhelming. Fortunately, most organizations’ recommendations for preventing SSIs remain fairly consistent. In early April 2008, the perioperative services team at Banner Baywood Medical Center, Mesa, Arizona, put the CDC recommendations to the test.

THE SETTING

Banner Baywood primarily serves the older adult population in the community. Surgical site infections are especially dangerous in this population because these patients are already compromised because of chronic disease, the condition that requires surgical intervention, and the surgery itself. Thus, infection control personnel at Banner Baywood perform targeted surveillance on high-risk, high-volume surgeries, such as orthopedic total joint replacements, open and laparoscopic hernia repair with mesh, and open and laparoscopic cholecystectomies. This surveillance is ongoing and is reported quarterly. In April 2008, the infection control surveillance revealed an alarming trend, an increase in the number of methicillin-resistant Staphylococcus aureus (MRSA) infections (Figure 1). Unfortunately, this discouraging trend did not stop but rather gained momentum.

Investigation of SSIs requires teamwork among multiple disciplines in the perioperative setting. An infection-control task force that consisted of OR leaders and staff members, infection preventionists, facility and maintenance leaders, quality-management partners, and safety agents was established at Banner Baywood in April 2008 so that all aspects in the reduction of SSIs can be brought to the forefront and discussed.

Focused efforts in seeking indications of a possible source began with examination of the SSI line list, a list of data collected for each patient infection that includes

![Figure 1. An increase in the rate of methicillin-resistant Staphylococcus aureus (MRSA) infections was noted during infection control surveillance at Banner Baywood Medical Center in April 2008; targeted surveillance included patients undergoing total or revision hip and knee procedures, open or laparoscopic cholecystectomies, and hernia repair with mesh.](image-url)
the patient’s name,
age,
procedure,
OR,
surgeon and anesthesia care provider,
staff members in the room during the procedure,
time in and time out of the room,
start and end time of the procedure, and
antibiotic given.

Unfortunately, nothing was perceived to stand out. The only thing that we knew for certain was that we were dealing with a MRSA outbreak. This bacterium is caused by a strain of *S aureus*, which is a fairly common type of bacteria that normally lives on the skin and sometimes in the nasal passages. However, MRSA is resistant to the broad-spectrum antibiotics commonly used to treat *S aureus* and can be fatal. Armed with the 1999 CDC Guidelines for the Prevention of Surgical Site Infections and AORN’s 2009 Perioperative Standards and Recommended Practices, we began our work.

As the wheels were put into motion to investigate the MRSA rate increase, it became evident that this was not going to be an easy task and that each perioperative team member’s skills and knowledge would be put to the test. In addition, as the weeks went on, stress and frustration among the members of the multidisciplinary infection investigation team resonated at our meetings and began to impede our cohesive efforts. However, because our patients’ safety is our top priority, our goal was to keep the patients at the center of our focus. Each team member remained dedicated to the efforts and continued to work tirelessly to protect the patients coming to our OR.

**ENVIRONMENTAL FACTORS THAT AFFECT SSI INCIDENCE**

Environmental factors and controls play an enormous role in preventing SSIs, as we discovered in our efforts to reduce or eliminate MRSA infections. Reinforcing sterile technique among team members and monitoring air quality; heating, ventilation, and air conditioning (HVAC); air ducts and vents; and terminal cleaning procedures and disinfectants are important aspects of ensuring a sterile environment in the OR.

**Sterile Technique**

To begin our quest to eliminate MRSA infections, our perioperative services educator conducted mandatory sterile technique inservice programs as refreshers for all staff members and physicians on shifts. These practices should be reinforced periodically (ie, at least twice per year) because people who work every day in a sterile setting tend to become complacent after awhile. The reminders serve two main purposes: they refresh our knowledge of sterile technique, and they remind all of those who work in the OR just how important it is to maintain a safe and sterile environment for their surgical patients.

During surgeries, traffic control patterns were reinforced with all staff members, physicians, and vendors. Vendors and observers were limited to one person in each OR to decrease the sloughing of skin cells, as well as decrease the air currents from multiple people moving around and the amount of dust contaminants in the air. Staff members, physicians, vendors, and students were reminded of the importance of removing all outer clothing and donning only hospital-laundered scrubs before entering the OR.

**Air Quality**

In addition to maintaining sterile technique, the air quality in the OR is certainly one of the highest priorities, if not the highest, to establish. Proper functioning of an effective HVAC system minimizes the contamination of the sterile field and risk of infection to the patient. Most facility and maintenance leaders would insist that monitoring of the air exchanges and positive pressure in each OR be conducted annually. These are the parameters established for facility leaders by the Guidelines for Design and Construction of Health Care Facilities in terms of maintenance of the
OR environment. However, we believe that once a year is not enough for the successful monitoring of the OR environment. In addition, facility administrators often hire an outside HVAC inspector and receive a report, which they may or may not share with the OR leaders.

Even though the annual report from the maintenance leader at our facility stated that the air exchanges and positive pressure in each OR met, and in some cases exceeded, AORN standards, a simple “tissue test” conducted by a surgical technologist in the OR revealed that five of our 10 ORs had negative pressure. A tissue test is easily done by dropping a one-ply tissue at the base of the OR door. The room has negative pressure if the tissue is sucked into the room, positive pressure if the tissue blows outward. The correction of this environmental finding was imperative to the success of reducing our SSIs and was the single most important environmental factor to help achieve optimal patient care.

Since the problem was corrected, positive pressure is maintained in each OR and monitored every two weeks for accuracy by an outside source. Reports are given to both the facility’s director and the senior clinical manager in the OR. As a result, everyone is kept apprised of this pertinent information.

HVAC

The HVAC systems in health care facilities are designed to maintain the indoor air temperature and humidity at comfortable levels, as well as to control odors, remove contaminated air, facilitate air-handling requirements to protect staff members and patients from airborne health care-associated pathogens, and minimize the risk for transmission of airborne pathogens from infected patients. Decreased performance of health care facility HVAC systems, filter inefficiencies, improper installation, and poor maintenance can contribute to the spread of airborne HAIs.

According to the CDC guidelines for environmental infection control, the standard temperature range in the OR should be between 68° F to 73° F (20° C to 22.8° C), with relative humidity ranging from 30% to 60%. Relative humidity levels greater than 60%, in addition to being uncomfortable, promote fungal growth. In addition, if the humidity is too low, there is a greater potential for dust and microorganisms to become airborne, seeking a host. These parameters are now measured every two weeks by an outside vendor at our facility.

Air Ducts and Vents

Many microorganisms make their homes in the hospital air-duct system, so air-duct and vent cleaning is an important environmental factor for the successful reduction of SSIs in an OR. The air ducts should be inspected quarterly and placed on a biannual cleaning schedule according to the Guidelines for Design and Construction of Health Care Facilities. The quarterly inspection allows for additional cleaning if necessary.

Inspection and cleaning of these ducts and vents disturbs the flora and colonies and helps to prevent bacteria from riding the air currents to a host organism, which could be a surgical patient. Correct filtration with high-efficiency particulate air filters in the air-duct system also drastically reduces the number of microorganisms in the OR environment. These filters must be on a scheduled inspection and replacement cycle as well.

Central Sterile Processing Department (CSPD)

Air quality, HVAC systems, and air ducts and vents also have important implications in the CSPD. These same standards used in the OR should be monitored with the same vigor. The clean room, where instrument trays are assembled in the CSPD, should produce positive pressure to the decontamination area, where the instruments are housed before terminal cleaning and disinfection. It is imperative that temperature and humidity controls be well maintained in this area so that fungal growth cannot thrive. Air ducts and vents
Terminal Cleaning

Next to air quality, terminal cleaning and OR disinfection practices are the second most important environmental factors for reducing SSI risk. Terminal cleaning is truly the last line of defense in preventing SSIs before the patient enters the OR environment. Terminal cleaning must occur every 24 hours and must be thorough, as indicated by educational staff member performance reviews, spot checks, and biannual process and practice reviews. The terminal cleaning process literally can remove all potentially harmful microorganisms from surfaces in the OR. If completed appropriately, terminal cleaning provides a safe environment in which to perform surgery.

Staff members who perform terminal cleaning can become complacent because their work, although extremely important, is very routine. Providing updated educational offerings and inservice programs to the terminal-cleaning staff members can help remind them of their very important responsibilities in preventing SSI. Tests used as part of staff member annual training and competency validation can demonstrate areas for improvement. For example, scattering small amounts of fluorescent powder in an OR and then shining a black light in the room graphically depicts areas that require additional attention and cleaning. This can be a valuable visual aid in showing areas in the OR that often are neglected or overlooked when terminal cleaning takes place.

To reiterate the importance of terminal cleaning for preventing SSI, in August 2008, our leadership team worked intensely side by side with housekeeping personnel at night for two weeks to review terminal-cleaning educational videos and share data on infection rates. Even though sufficient time and effort was spent, the terminal-cleaning staff members still did not fulfill their responsibilities. Because terminal cleaning is essential to a safe OR environment, these staff members were replaced. Some-times this must be part of the solution in keeping patients safe and preventing SSIs.

Disinfectants

In addition to ensuring that the cleaning staff members are performing their duties responsibly, the type of surface disinfectant that is used also has implications for preventing SSI. Some ideal characteristics of disinfectants used on environmental surfaces include the following:
- rapid action in a broad antimicrobial spectrum,
- maintained efficacy in the presence of protein or blood,
- low toxicity,
- safe for personnel to use, and
- material compatibility.

The spectrum refers to the range of recommended product use and the sphere of microbial kill tested as well as the contact time and temperature, according to the manufacturer and the Environmental Protection Agency-approved label. It is important to choose cleaning products in the OR that have a short kill time to destroy microorganisms. Some products have a 10-minute kill time, which is fine for use in the OR if they are allowed to dry naturally. Switching to a product with only a two- to three-minute kill time is truly more efficient and effective in an OR environment.

PREOPERATIVE PROCEDURES FOR PREVENTING SSI

Consideration of preoperative site preparation is also extremely important in preventing SSIs. For a product to be labeled as a preoperative skin preparation, the US Food and Drug Administration states that the solution must rapidly reduce (ie, within 10 minutes of application) the number of both transient and resident microorganisms within the surgical field before the incision is made, and microbial regrowth should be suppressed for six hours after the skin prep agent is applied. Research study results reveal that 2% chlorhexidine gluconate (CHG) preparation cloths...
are effective for reducing microbial growth with sustained and prolonged activity. Chlorhexidine gluconate disrupts the cellular membranes of bacteria and is favored for its long-lasting activity against gram-positive and gram-negative organisms found on human skin. Chlorhexidine gluconate and povidone-iodine both reduce bacterial counts on contact, but this effect is sustained longer on skin cleaned with chlorhexidine. Iodophors also act against common skin flora; however, their activity is much shorter acting than that of CHG. Unlike CHG, the iodophors can be inactivated by blood or serum proteins and should be allowed to dry to maximize their antimicrobial action. The effectiveness of pure alcohol solutions is limited by their lack of any residual activity.

A full-body 4% CHG shower reduces bacterial counts at abdominal and inguinal sites, and a 4% CHG two-minute surgical scrub has been shown to reduce microbial counts better than povidone-iodine. It is believed that microbial counts on the skin are reduced because of the residual CHG left on the skin. Using CHG prep cloths does not require rinsing after use.

Our Perioperative Services Timeline of Actions to Reduce SSI

The lack of monitoring and control of environmental factors in the OR and Sterile Processing Department can precipitate an outbreak of surgical site infections (SSIs). We learned through our investigation of SSIs not to become complacent and to review, remind, educate, and be proactive in examining processes and sterile practices in the OR. Continuous surveillance with attention to detail is extremely important to maintain the viability and safety of all ORs. The following is the timeline of the actions we took to reduce SSIs in our quest to target zero.

April 2008
- Standardized sterilizers to all prevacuum cycles, replacing all gravity cycles
- Locked settings on autoclaves
- Reinforced OR traffic control patterns with staff members
- Posted signage on doors of ORs with implants to prompt staff members to enter only through the sterile core
- Held an inservice program on sterile technique
- Limited students and observers to one per OR
- Changed to using thicker surgical wrap
- Reminded and sent letters to vendors to check trays for “spurs” and sharp edges and replace those trays
- Employed a new process for cleaning all instrument containers

May 2008
- Placed plastic transport trays under orthopedic trays on consignment inventory to cut down on the tearing of the instrument wrap

June 2008
- Received a surgical site infection presentation from one of our facility’s vendors

July 2008
- Gave Surgical Care Improvement Project presentations to staff members

August 2008
- Received an inservice program on infection control from one of our facility’s vendors
- Cleaned instrument racks in the Sterile Processing Department and OR and developed a cleaning schedule
- Added 1 minute of drying time to the prevacuum cycle on each steam sterilizer

(timeline continued)
Department conducted a quality improvement project to investigate whether using CHG prep cloths could reduce the rate of SSI at Banner Baywood. The idea was presented to the Surgical Committee for approval. The CHG prep cloths were used on patients having total joint replacements or laparoscopic surgery. Data from a total of 515 laparoscopic surgeries and 371 total joint surgeries between September 5, 2008, through December 15, 2008, were included.

Before the project began, our perioperative leadership investigator provided an inservice program for the nurses to demonstrate correct use of the cloths by using gentle exfoliation on the patient’s skin. The preoperative nurses were instructed to perform the wash for three minutes, allow the area to air dry, and then perform a second wash for another three minutes. Evidence-based information about the effectiveness of CHG and the reasons for implementing its use also were discussed.

Increased awareness of the department’s infection rates and the change in preoperative procedures empowered the nurses to collaboratively participate as well as identify problems that might have been encountered during the project.

### Timeline of Actions to Reduce SSI

- Sent a letter to all surgeons, anesthesiologists, and obstetricians/gynecologists to remind them to wear only hospital-laundered scrubs and not bring food or beverages into the ORs or the preoperative or postanesthesia care unit control desks
- Worked nights to ensure terminal cleaning was performed appropriately
- Established and scheduled OR Infection Control Task Force weekly meetings
- Determined air exchanges and humidity in each OR and the Sterile Processing Department
- Received confirmation of cleaning of vents from March 2008
- Determined that the number and type of trays being flash sterilized was minimal (ie, less than 5%)
- Applied Crucial Conversations inservice program to infection control principles
- Provided an inservice program for OR assistants and environmental service staff members to demonstrate correct decontamination and sterilization techniques
- Checked with the pharmacy about the appropriateness of iodine and alcohol preps:
  - Stable shelf life of one year
  - Prepared in sterile bottles
  - Receipt of how it is made prepared by the pharmacist
- Changed to using the thickest surgical wrap
- Implemented the use of disposable blood pressure cuffs
- Discovered negative pressure (instead of positive) in multiple ORs even though reports showed all positive pressures
- Held meeting of the multidisciplinary Infection Control Task Force to discuss and implement practices involving air exchanges, air flow, air pressure, humidity, temperature, and cleaning of air vents in the OR and Sterile Processing Department, as well as discuss how to handle patients with tuberculosis in the OR

#### September 2008

- Implemented a preoperative wash with chlorhexidine gluconate (CHG) wipes for patients undergoing total joint laparoscopic procedures
- Had air ducts in all ORs cleaned and scheduled for cleaning twice instead of once a year
- Verified positive pressure in all ORs and began the procedure of bimonthly testing by an outside vendor

*(timeline continued)*
Although the surgeons were informed that their patients would be receiving prep with the CHG cloths before surgery, some surgeons were resistant to the change. Some complained that the seven-minute prep took too long. With the support of the management team, the preoperative nurses continued with the process we were investigating and reminded the surgeons why this prep is so important. This preoperative CHG prep cloth was used in addition to the surgical site prep performed in the OR.  

The data obtained during the three-month project were not enough to establish definitively whether the use of CHG cloths preoperatively was solely effective in preventing SSI. Nevertheless, the management team decided that the use of CHG would continue for all surgical patients, and the facility’s procedures now include a preoperative bath, as well as a surgical-site scrub in our preoperative holding area. Given today’s health care environment and patients’ concerns with MRSA, it seems prudent to have patients apply full-skin antisepsis before entering the OR. The use of CHG cloths provides an additional shield to protect our patients against SSI. 

Timeline of Actions to Reduce SSI

October 2008
- Presented inservice programs for terminal cleaning staff members in the OR and implemented coaching by a manager

November 2008
- Identified that there was negative pressure in two ORs and corrected the problem
- Provided all perioperative staff members with lab coats to wear when they are out of the department
- Held a meeting between the OR leadership group and one of the facility’s vendors to review a product that uses ultraviolet light to sterilize rooms
- Held an inservice program on OR cleaning
- Held inservice programs for terminal cleaning staff members that included coaching by a senior manager

December 2008
- Deemed positive air pressurization, humidity, and temperature to exceed standards
- Committed to implementing inpatient preoperative showers or baths with 4% CHG and changing linens before patients come to OR
- Decided to provide all surgical patients at preadmission testing visit with 4% CHG and instructions for showering before surgery
- Decided to provide all surgical patients in preoperative holding with a 2% CHG prep for the surgical site
- Relieved terminal cleaning staff members of their duties for failure to achieve appropriate decontamination of the ORs

January 2009
- Implemented the decision to provide all surgical patients at the preadmission testing visit with 4% CHG and instructions on use
- Implemented the decision to give all surgical patients in preoperative holding a CHG prep of surgical site
- Implemented changing linens in inpatient surgical units and administering a 4% CHG bath to the patient before his or her arrival in preoperative holding for surgery
- Discussed at nursing director’s meeting the need for all inpatient units to change the sheets and have patients bathe with 4% CHG before they come to surgery

(timeline continued)
During the preadmission visit, all patients now receive a bottle of 4% CHG. Preadmitting nurses instruct the patients to shower on the morning of surgery. Patients are instructed not to use the product near their eyes or mucus membranes, to dry off with a clean towel, and to dress in clean clothing. Patients also are instructed not to apply lotion, moisturizers, or makeup. Hospital inpatients also receive a chlorhexidine shower or bath before surgery and their bed linens are changed.

PREVENTING SSI THROUGH CULTURE CHANGE

Along with examining environmental factors and implementing the preoperative use of CHG wipes in our efforts to reduce infections, we also examined our culture. The process of working toward zero infections enabled the group to realize that solutions to the problems were within each and every one of our employees.

Surgical conscience must be promoted to prevent SSIs. Perioperative staff members are taught sterile technique and surgical conscience at the beginning of their training. However, over time, staff members can become complacent and stop correcting each other’s practices.

Timeline of Actions to Reduce SSI

- Hired new terminal cleaning staff members
- Met with Banner Desert Medical Center senior inpatient and OR director to reexamine practices
- Set up Sterile Processing Department to monitor tray trends for flash sterilizing to determine the need for specific instrument trays
- Implemented the decision that all OR personnel must complete a 1-minute hand wash or use hand sanitizer on every entry to the OR
- Changed cleaning of lead aprons to a weekly schedule
- Implemented cleaning of anesthesia trays on completion of each procedure
- Cleaned OR cupboards and added cleaning of OR cupboards to the monthly sterile core cupboard lists
- Lowered counter bags on IV poles to reduce the risk for accidental splashing
- Met with OR assistants and custodians from all shifts to review OR cleaning duties (eg, telephones, computer keyboards, mopping from clean to dirty areas)

February 2009

- Had a complete florescent light cleaning in all ORs to remove debris
- Met with radiology leaders to discuss x-ray machine cleaning and decontamination, cassette covers, and diagnostic imaging staff members’ hand hygiene
- Updated all computer keyboards to be completely immersible
- Presented an inservice program on proper techniques for waterless scrub at morning and evening shift reports

March 2009

- Conducted a trial of 2-minute kill time disinfecting towelettes
- Spot checked terminal cleaners using powder and black light technology

April 2009

- Switched to towelettes with 2- to 3-minute kill time of all organisms
- Mounted hand sanitizers outside each OR and reminded staff members of good hand hygiene
- Passed hand sanitizer among team members during AM report
One alarming statistic presented to the perioperative staff at a staff meeting in August 2008 is that 3.5 million patients will get an infection from a caregiver who did not wash his or her hands.18

Often, health care workers witness rules being broken, lack of support, and poor teamwork. Although they may have concerns about their colleagues cutting corners and making mistakes, few speak directly with their coworkers about breaks in technique. A study conducted by VitalSmarts and the American Association of Critical-Care Nurses, found that most health care workers did not think it was their responsibility to call attention to these issues.18 The study also found that having crucial conversations (ie, resolving conflicts respectfully even in the face of arguments and misunderstandings) led to improvements in quality of care.18

This study was the focus of our first staff in-service program. Our management team stressed to the staff members that they not only have the ability to remind each other when breaks in technique are observed, but it is an expected duty and job requirement that they do so. All employees are responsible for providing a safe environment for our patients and colleagues. Demonstrating back-to-basic techniques (eg, skin prepping, turning over the rooms, terminal cleaning of the rooms) were focuses of other staff in-service programs. These programs enable staff members to critique each other on their practices in a non-threatening environment.

The perioperative leadership team challenged the staff to examine extrinsic factors that may have played a role in our increased infection rate. Empowering staff members to speak up when they witness broken rules and reviewing best practices from the AORN standards helped the staff members recognize their important role in contributing to patient safety. We encouraged our staff to become inquisitive; this paid off in the case of the surgical technologist who discovered that some of our ORs were in negative pressure, which allowed us to make necessary adjustments.

This sharing of information helped to drive home the importance of staff involvement in troubleshooting and making changes to improve patient safety.

CONTINUING WORK TO PREVENT SSI

In 2008, the hospital quality department developed and implemented Team SAFE (Safety Awareness For Everyone) to advance a culture of safety in the hospital one person at a time. All employees are encouraged to attend a once monthly day-long experience, which is attended each time by about 45 employees who represent the various departments. Emphasis is placed on infection control concerns and practices. The attendees are given a hand-washing observation tool and instructions. Then, they are sent to designated units to observe actual practice and report back to the group. It is impressed upon the attendees that hand washing is the most important tool in the health care worker’s arsenal for preventing infection.

The afternoon session focuses on personal accountability and communication. Examples of patient outcomes from failed communication are given and information about safety practices is provided. The value behind Team SAFE is that a culture that promotes patient safety is the foundation for all education, policy, and practice regarding patient safety measures. Each individual must feel comfortable calling attention to a teammate’s actions when those actions may compromise safety. Fear is not an option if safe patient care is to be given at all times. Everyone is responsible for safe patient care no matter what role he or she plays. A culture of safety is crucial in preventing SSI, and this must be woven into the tapestry of the work environment. The patient is always center stage and that enables the staff to stay focused on quality and safe patient care.19

COLLABORATING FOR CHANGE

The estimated number of hospital deaths from HAIs is sobering and reinforces the need for improved prevention and surveillance efforts.1
Despite advances in infection control practices, SSIs remain a substantial cause of morbidity and mortality among hospitalized patients. This may partially be explained by the emergence of antimicrobial-resistant pathogens and the increased numbers of surgical patients who are elderly or have a wide variety of chronic, debilitating, or immunocompromising diseases. To reduce the risk of SSIs, a systematic but realistic approach must be applied with the awareness that this risk is influenced by characteristics of the patient, surgery, personnel, and hospital.6

Chasing zero may seem like an unattainable goal, but it can be done. At Banner Baywood, we had no infections from October 30, 2008, through May 30, 2009 (Figure 2). Continued education and awareness of the environment is necessary to keep today’s patients safe. Best practices and research must be used to continue to win the battle against SSIs. Our department’s success in preventing SSIs was the focus of a poster presentation at AORN’s 2009 Congress in Chicago, Illinois. The poster was awarded a ribbon in the Clinical Improvement/Innovation category.

The managers at our facility empowered the perioperative staff members to become collaborators and change agents. They encouraged everyone to collectively participate in solving the problem of SSIs, which directly affected their daily practice. The results we achieved are impressive and developed from the department’s shared sense of purpose and vision. What we do every day really matters in realizing our mission of making a difference in people’s lives through excellent patient care. AORN

Editor’s note: The authors used data available at the time of their writing of this article. As of their writing, there was only one SSI and no MRSA infections through May 30, 2009. At the end of the second quarter in June, they experienced a few infections and have returned to zero infections in the third quarter. They continue their quest for zero infections.

References

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