Surgical services leadership and staff will support endeavors to gain/improve clinical expertise, increase technical advantage, and actively participate in the organization’s marketing strategies. On December 28, 2009, the daVinci robot came to Chambersburg Hospital. There were mixed emotions about its purchase, but who can argue the organization’s vision of being the area’s health care provider of choice that offers a full continuum of integrated state-of-the-art services that are high quality, accessible, and cost-effective. Nursing readily embraced this and, true to its calling, surgical services leadership and staff geared up to focus on accreditation requirements, physical room set up, training, and team building. Proactively, they also added the surgical operational committee that takes care of every specialty that wants to use the expensive and complicated tool. The urology robotic teams’ growth is phenomenal. A number of challenges seasoned them to be expert robotic teachers. Financially, Chambersburg Hospital has modified some organizational structures to suit its needs. This 239 bed capacity community hospital is going strong with its robotic champion, Dr. Kambiz Tajkarimi, tirelessly coaching the surgical department to be a center of excellence. February 11, 2010, marked the first robotic assisted procedure. Its debut was scheduled amidst the rage of the back-to-back snowstorms that paralyzed the area’s major thoroughfares causing delays but not cancellations. As of July 2010, Chambersburg Hospital boasts of 30 robotic assisted surgical procedures from urology, GYN, and general surgeries.

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Robotic-assisted surgery (RAS) in children for urological procedures, such as pyeloplasty, ureteral re-implant, nephrectomy, and orcheopexy has extremely impacted perioperative nursing practice. Minimal invasive surgery has proven to offer better outcomes when compared to open procedures, but at the same time it has helped us to define the role of nursing in health care technology. To provide compassionate and safe patient care, it is very important for nurses to embrace this technology and use it to incorporate into their clinical care by focusing on nursing principles of assessment, planning, implementation, and evaluation. In order to ensure successful outcomes from RAS, perioperative nurses must adhere to the basic values of nursing practice in maintaining the human side of caring, as well as a high level of knowledge necessary for adapting to this new technology (robotics). At Children's Hospital of Philadelphia (CHOP), our team has developed an intense and comprehensive training program where not only the surgeon but the experienced nurses are excellent resources for the novice nurses coming to join our robotics team.

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Children's Hospital of Philadelphia and Fox Chase
**SESSION #**: 3393  
**POSTER ID**: 144  
**POSTER TITLE**: Related Factors in Robotics Improve Patient Satisfaction

Purpose: The purpose of this project is to research several contributing factors related to robotic surgery and how it impacts clinical outcomes. Our areas of research will include surgical site infections, postoperative pain medication administration, blood loss during surgery, and length of stay.

Method: The data for this research will be collected by reviewing 45 patient charts. The data will compare laparoscopic, open, and robotic cases.

Results: We hope to show that patients undergoing robotic surgery have a higher level of satisfaction in regard to postoperative pain, as well as a lower number of surgical site infections, less blood loss during surgery, and therefore fewer transfusions. In addition, we anticipate shorter hospital stays.

Perioperative Nursing Implications: The findings from this study may be used to continue to promote and develop our robotic surgery program for future patients and surgeons.

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Surgical site infection (SSI) is a serious public health problem considering its incidence, mortality, and high financial cost, accounting for about 14% to 16% of all hospital infections. An epidemiological study aiming to identify risk factors of SSI in patients undergoing surgery in a public teaching hospital in Minas Gerais, Brazil, was conducted. It considered a sample of 138 patients with confirmed ISC. The data were obtained from the infection notification forms and medical records of these patients with the Archive Service of Statistics and Medical. It was observed that 54.4% of patients were female, mean age was 42.2 years, 49.3% were smokers, 37% consumed alcohol, 40.6% had comorbidities, 38.4% had the infection preoperatively, 5.1% were overweight or obese, 6.5% were taking immuno-suppressive drugs, and the average days of preoperative hospital stay was 2.3 days ranging from zero to 30 days. It was found that 37% were contaminated in surgery, 32.6% potentially contaminated, 21.7% infected, and 8% clean. The majority of surgeries (83.3%) was urgent or emergency, 46.4% large, 29% medium, and 68.8% of patients remained with drains in the postoperative period. In most cases (97.1%), antibiotics were used and staphylococcus aureus and S. epidermidis were the prevalent microorganisms. It was concluded that the presence of the infection preoperatively, duration of preoperative hospitalization, prolonged, obesity, contaminated surgery, comorbidities, and surgical emergency care were the main risk factors identified for the occurrence of SSI. It is hoped that these results may support the development and implementation of care protocol aiming at the prevention and control of SSI.

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**FACILITY**

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Incisional surgical site infections (SSIs) have been reported after 2% to 6% of all spinal surgeries and 0.22% for minimally invasive spine surgeries in published studies. During the second and third quarters of 2009, one of our facilities completed 784 minimally invasive spine surgeries, and the rate of SSIs at this facility was 0.76%. Our other facility in the same time period completed 1,590 minimally invasive spine surgeries and had a 0.06% SSI rate. Since both centers perform the same types of procedures and have similar patient demographics, this discrepancy in SSI rate raised concern among the nursing and medical professionals. The purpose of this initiative was to reduce the rate of infection of facility one through comparative benchmarking with facility two. A multidisciplinary team was formed, and a focused review was performed to evaluate infection control measures at both surgical centers. A presentation of the findings, infection control practices, and variations in care between the two centers was presented to the center staff. Corrective measures, such as standardized dressing change protocols, were established and implemented. The SSI rate at facility one declined from 0.76% to 0.00% in the following quarter’s follow-up study, during which 329 procedures were performed. The findings of this study have shown our staff the value of regular internal benchmarking between our surgery centers for rapid identification and correction of concerns related to quality care.

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**Facility**

Laser Spine Institute
A surgical site infection (SSI) committee was formed consisting of the facility's infection control doctor, nurse supervisors from nursing units throughout the hospital, surgical services educator and director, housekeeping supervisor, and the infection control nurses. The team meets once per month and their goal is to track SSIs from admission through discharge to distinguish common denominators for the potential etiology of the SSIs. Factors that have been identified include identifying pre-existing co-morbidities, preoperative skin preps, staffing patterns during the procedure, flashing of items during the case, room cleaning patterns, which unit the patient was on postoperatively, if any dressing changes may have been done postoperatively, and if patient and family SSI teaching was completed and documented. Implementation is ongoing towards prevention of SSIs beyond the basic Surgical Care Improvement Project (SCIP), including reassessing the procedure and frequency of terminal cleaning, decreasing flashing by purchasing extra equipment and instruments, mandatory house-wide competencies for nurses on sterile dressing changes, and using chlorhexidine cloths over the incision site in pre-op holding. Perioperative nurses are the captains of the operating room when it comes to prevention of SSIs; their responsibility lies in providing the best patient care and this includes assisting the SSI committee by monitoring room traffic during procedures, observing aseptic technique, and reporting any other breaks in patient care that may be a causative factor in an SSI.

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**FACILITY**
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In 2002, the Centers for Disease Control and Prevention reported that about two million patients got nosocomial infections; 90,000 of these patients developed a significant untoward outcome. A significant or untoward event could be death or permanent injury resulting from these infections is a sentinel event, which is then reported to the Joint Commission. Therefore, the Centers for Disease Control and Prevention and the Joint Commission have heightened the awareness of the need for action plans, process evaluations, and data analysis related to flash sterilizations within organizations. Our focus with this process is to evaluate and decrease the flash sterilization percentage rate within our organization. Our operating room (OR) steering committee consists of surgeons, directors, managers, charge nurses, educator, infection prevention nurse, and a sterile processing manager. One of our strategies to decrease our infection rate was to further drill down our process for flash sterilization in our ORs. We decided as a group to review all the flash logs quarterly. Kelly Milligan was delegated to collect, interpret, and report out the data from the flash logs and flash sterilizers in all ORs. We currently are in the assessment needs phase of our plan. Implementation measures are slowly being incorporated into our plan, such as educating the staff on flash sterilization and buying instrumentation that are utilized consecutively for one particular surgeon or procedure. We hope our outcomes will show a decrease in our flash sterilization percentage rate. If our processes and data collection prove to decrease our overall flash rate, we can accurately prove that we are moving toward decreasing our patients postoperative infection rates.

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Aria Health
In a desire to meet best practices, the OR team decided to adopt a goal of 0% flash sterilizing. Previous measures had reduced our sterilization rate to 1.2%. Some of the team feared that the goal was unrealistic and unattainable. Over the next several months, after aggressive education measures, the team noted that the flash rate continued to be labile. All components of the flashing process were dissected. A just-in-time autoclave log was developed that revealed the current process problems. The team of leadership, nurses, and SPD staff began meeting twice a week, analyzing the OR schedule, the log, and identifying instrumentation conflicts. The meetings revealed measures to produce scheduling optimization, effective selection of sterilization systems, and necessary instrumentation purchases to realize the goal. This interdisciplinary approach improved communication and fostered collaboration. The team champion made rounds daily educating and guiding the staff on proper instrumentation processing as struggles arose. Even with this uncompromising approach, the team recognized immediately that our success was stalled. A hard rule of NO flashing without flash team approval was adopted. This proved to be a volatile measure that incited our surgeons, as well as nursing colleagues. The rule needed to be NO flash sterilizing without team consultation first, thus providing the OR personnel with the support and assurance they needed. Our current sterilization is down to 0.15%. Our success with best practices has continued to encourage the team with a goal that was thought to initially be daunting.

**AUTHORS**

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**FACILITY**

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Flash sterilization in the OR remains a challenge for many staff members at Thomas Jefferson University Hospital (TJUH), a 957 bed, acute-care, urban facility housing 32 OR suites. Due to the vast number of surgeries performed each day at this academic medical center, the quantity of instruments flashed is not suitable for the superior standard of care established. AORN Perioperative Standards and Recommended Practices state that the use of flash sterilization should be kept to a minimum. A committee composed of RNs, RNFAs, and nurse educators organized a "No Flash Day" to demonstrate that flashing could be eliminated with the proper planning and teamwork. Multidisciplinary teams were formed to research why flashing occurs, the correlation between flashing and surgical site infections, common items flashed, and recommended practices and standards of flash sterilization. Collaborated team effort, awareness, and preparation produced "No Flash Day," a success with just one tray flashed. The discovered outcome presented a significant reduction in flash sterilization in the following months. A multisystem approach, including the sterile processing unit, vendors, planning and preparation from specialty team leaders, and assistance from OR personnel, has been employed to provide a continuance of superior care. A culture change is evident.

**Authors**

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Thomas Jefferson University Hospital
Session #  3393

Poster ID:  151

Poster Title:  Are You Documenting?

Our primary objective is to improve flash sterilization documentation and decrease the overall number of flash sterilization loads, thereby decreasing the risk for surgical site infections.

Description of Team: Carolyn Stahl, RN, Clinical Ladder 4; Janet Peshkin, RN, MS; Julie Hudson, RN, MS, director of perioperative services; and Debbie Schoonover, ORA.

Methods: Documentation of cycle information must be maintained to improve tracking of flashed items. We investigated different companies' covered Flash Pan systems to improve transfer to the sterile field. Our project encompassed improvement of data collection for flash sterilization with a comprehensive autoclave form and spreadsheet, staff review of Recommended Practices and Policy and Procedures, collaboration with Sterile Processing Department to purchase additional instrument sets and covered Flash Pans, and collaborating with departments using autoclaves in the OR (anesthesia department). We changed the tracking log system, educated OR and doctors via partnership committee meetings concerning implants, and gave in-services. We documented flash log sheets daily. We also changed the biological tracking log sheets and revamped our sterilizing policy.

Results: We went from 22.5% compliance in autoclave documentation in July 2009 to 93.86% compliance in July 2010. Each OR specialty selected the Flash Pan which best met their needs and the staff has been educated in their use. By greatly improving our compliance, as recommended by AORN and AAMI, we have improved our patient's safety relative to possible surgical site infections. Our patients are our priority and we are their advocate.'

Authors
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In an effort to decrease flash, streamline the distribution of peel packs, and centralize all sterilization, we purchased six automated inventory dispensing units to hold and dispense peel pack instrumentation in the OR. These six machines were stationed at strategic locations so they were easily accessible. Using the flash records, we identified the items that we most frequently flashed for each service, the most frequent instrument patterns, and unique items that did not reside in a set to determine the initial inventory. Each individual instrument peel pack was identified and a minimum par was set. Each machine was outfitted with instruments specific to their location and the services which would be accessing. For each of the machines, the location of like instruments was standardized to the best of our abilities. All staff was provided an individual log in. The CS staff stock the machine daily using the fill report that prints daily. On average, the CS replenishes 130 peel packs Monday through Friday. This is 130 less reasons to flash and it has had a direct impact on reducing the amount of flashing. This initiative has been going on for over four years and it has allowed us to decrease our flash and provide efficient service to the OR. In addition, this process allowed us to quantify our individual instrument needs and provide a dollar value budget purposes. The OR has come to rely on the efficiency it affords.

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