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Performing a correct surgical time out

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Master's Projects

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Clinical Leadership Theme

The CNL role that will guide my project is the role of Risk Manager. The role of a CNL Risk Manager is to identify areas of potential risk and to implement risk reduction measures as well as monitor and maintain record on the project's progress. Through leadership, teamwork, effective communication, and performing root cause analysis CNLs are performing as the ultimate patient advocate to reduce the risk of compromised patient care. As I proceed through my project I will identify the way in which the patient is placed at risk due to the surgical time out not being performed correctly and interventions that will reduce the possibility of sentinel events, near misses, and surgical errors.

Statement of the Problem

The surgical time out is conducted in every operating room case before the first incision is made to ultimately assure patient safety and prevent surgical errors. The surgical time out can be viewed as a short meeting between all members of the surgical team to verify that everyone is on the same page and aware of the same concerns. The circulator nurse is the ultimate advocate for the conduction of the surgical time out in an effort to eliminate the possibility for sentinel events and improve patient outcomes. The obstacle occurs when staff members are not engaged and are participating in other activities rather than focusing on the time out. The purpose of the time out is to prevent the wrong patient, wrong side, or wrong procedure from occurring as well as confirming that the patient is in the correct position, the proper equipment / supplies are present, confirming drug allergies and medications administered, anticipation of any possible

complications, etc. On any given day you can witness music playing, staff engaged in personal conversation, techs or surgeons draping the patient all while the nurse is attempting to conduct the time out, many times the nurse gives up and the time out simply becomes an item checked off a list, adding risk of harm to the patient. The purpose of this project is to stress the importance of the surgical time out, uncover the root analysis for faulty performance, and to implement change that will lead to correct performance. It is my plan to also stress the fact that a patient does not have to lose the wrong limb to be negatively impacted by a dysfunctional time out and it is our commitment as nurses to restore optimal patient care in the operating room.

Project Overview

My first goal is to identify the reasons / barriers / individuals etc. that are contributing to the surgical time out not being performed or being performed incorrectly and without proper participation. Once I can identify a few root causes I can look at them individually and address them one by one. I will then aim to reeducate the staff on current AORN standards and hospital policy, this will include visuals put up in the break rooms and nurse's stations as well as the operating room suites themselves. Small in-services will be given during the morning huddle, the morning huddle is 10 minutes and a few minutes is all it will take to relay valuable information. The morning huddle in-services will include a brief reminder to be conscious about the days' time outs and performing them correctly, positively recognizing staff that has consistently followed correct procedure, statistical analysis of the previous weeks' time outs that were performed correctly and a reminder of our 100% compliance goal. A significant part of my plan is to correctly educate and enlighten the new oncoming nurses that will be joining the peri op 101 training program. As a peri op 101 trainee I can say that I learned the importance and value of the surgical time out and being taught the correct way from the beginning has allowed me to integrate good practice. My final goal would include conducting periodic random audits to assure

that correct performance is still being practiced. Education will be a considerable part of the project as well as periodic reminders and return demonstrations. After a time frame of 6 months we expect that we will see 100% compliance to the proper performance of the surgical time out, as a result reducing the risk of surgical errors and complications to the surgical patient. We are aiming to improve the conduction and participation of the surgical time out, the process begins with the circulator nurse initiating and leading the surgical time out and ends when all staff members have agreed to case specifics reviewed in the surgical time out. By working on this process we expect that nurses will practice according to hospital policy and the guidelines set by AORN. It is important that we work on this now so that we prevent any sentinel events, surgical errors, near misses, or unnecessary complications to the surgical patient. As operating room staff we only provide direct patient care during the time the patient is in surgery, however, we are a part of the continuum of care and our interventions or lack of can have a direct effect on the surgical patient's recovery and post-operative phase.

Rationale

The needs assessment that led to implementation of this project was an incident that occurred in the Operating Room in January 2015. A patient was brought in for a left oophorectomy, the left ovary was removed laparoscopically but there was a discrepancy in the charting in that the nurse had charted numerous times that the right ovary had been removed. It was brought to the attention of the circulator nurse the following day that the charting on laterality was incorrect, when brought to her attention she commented that she was under the impression that the surgery was to remove the right ovary. Although the correct ovary was removed and the patient's safety was not compromised the potential for error was huge in that all members of the surgical team were not on board with the case specifics.

There is data that has been collected to show that staff has not been complying with SCD

orders placed by the physician. When a surgeon asks for placement of sequential devices it is the responsibility of the circulator nurse to apply the SCDs and assure it is turned on. In some cases it has been commented that the devices were placed on the patient's legs but neglected to be turned on. SCDs assist in preventing DVT and placement is confirmed in the surgical time out as proper equipment present. During a successful time out the staff can confirm under the equipment section that the SCDs have been placed appropriately. Currently we are placed in red meaning that we are at 12% or below in this category. (Appendix F)

Following the lack of communication that occurred in the operating room the nurse educator concluded through a root cause analysis that a faulty surgical time out had occurred. (Appendix A) Had the surgical time out been performed correctly the entire surgical team would have known the correct laterality of the oophorectomy case. Tracer audits were initiated on the surgical time out and the initial audit conducted over a span of 3 weeks concluded that only 30% of the surgical time outs were performed correctly. The time outs that were deemed incorrect were due to lack of participation, lack of eye contact, staff engaged in other activities, and in some cases a member of the surgical team not present in the room.

At the time that the tracer audits were initiated in March the hospital was using 1 – 2 nurses on a daily basis to perform tracer audits on the surgical time outs, this was their only duty for the day. These selected nurses were making rounds through the start of cases to witness the performance of the surgical time out, they were spending time to gather the information, create reports, relay findings to staff at the morning huddle, and having one on one conversations with individuals who require further education. These nurses were being paid between $48 and $56 an hour to perform tracer audits on the surgical time outs. The tracer audits will continue for the

next year and are conducted 2 to 3 times a week. Tracer audits would have cost the hospital between $1536 and $1792 a week. In May the nurse educator and myself decided that assigning 2 nurses to perform only surgical time out tracer audits was being wasteful, surgical time outs take only a few minutes to complete and did not require a whole 8 hour shift to gather the appropriate data. The decision was made that we would utilize the break nurses and charge nurse to sit in on at least 5 surgical time outs a day, giving us a total of 25 cases of data a week. The use of break nurses, the charge nurse and myself performing the tracer audits decreased the project cost to zero. I am doing the bulk of the work on my student hours, I am gathering the information on the tracer audits, creating the statistical analysis, converting this information into charts and graphs as well as creating the educational visuals. I am also providing the brief in-services and presenting the information to our nurse educator, 4 months into my training my educator felt that I knew enough to audit the time outs.

Methodology

The change theory that will guide my project is Lewin's Theory of Planned Change. Lewin's theory of planned change consists of three stages that the project will go through, unfreezing, transitioning, and refreezing.

Unfreezing: The first stage is recognizing there is a need for change and bringing it to the attention of others. The tracer audits are being conducted to find what errors are present and being made by whom. The crucial part of this stage is to determine the factors that are against positive change or weakening our interventions. If we are successful in identifying the factors or individuals who are hindering correct performance of the time out then we can move forward with solutions.

Moving or Transitioning: The second stage involves individuals making the changes and proceeding with the new implementation. This stage will be the most difficult because it requires that individuals change the way in which they conduct their time outs. It can be hard for individuals to adapt to the new change and take some time, especially those that are creatures of habit or do not recognize the value. This stage will include audits that give staff positive

feedback on what they are doing correctly as well as ways to facilitate a smoother delivery.

Refreezing: Stabilizing the change so that it now becomes the norm, very crucial to assure that is sustains over time. The correct performance of the time out needs to become the new norm. I feel that it will be easier for the new nurses coming into the OR because they will be taught and reinforced the correct way. I see some resistance from long time staff who are set in their ways, however with repetition we can strengthen this very important part of the OR daily procedures.

One of the first changes that we implemented was revising the time out procedure board so that it would be more case specific and relevant in an effort to not waste time. Asterisks have been placed next to certain topics, the asterisk indicates that staff only needs to review this entry if it applies to the case we are in. In certain cases for example there are no images to be pulled up, no implants that will be implanted, or a type and screen is unnecessary. (Appendix E) The circulator nurse now must have the patients signed surgical consent in hand when the surgical time out is being conducted, this will assure we are agreeing to the procedure that the patient has signed for and not simply reciting from memory. Another change that has been made to the timeout is that the circulator nurse does not have to be the one to initiate and conduct the time out, the surgeon can perform the time out and it is actually encouraged that he or she does. “If the surgeon starts the time out, it shows it is really important, and we are going to do this as a team. Also, the surgeon knows when he or she is ready to begin the procedure.” (Harder PhD, 2012)

Once the new changes were implemented and the updated surgical time out poster had gone up in each operating room suite tracer audits continued, we expect to see an increase in the number of time outs that are being performed correctly. The ultimate goal is to have 100% of surgical time outs being performed correctly, this is not expected initially but we hope to see a rise in percentage as we proceed. The data that is collected is simple to collect and to analyze. For each surgical time out that is audited there is an audit form that is filled out and turned in, the form will indicate if the time out was performed correctly or not and if not it will show which

part was lacking. Once all forms have been collected for the week we can turn the data into a simple statistical analysis and our progress will be easy to track. (Appendix G)

Data Source / Literature Review

The Association of PeriOperative Registered Nurses (AORN) has been a great resource in providing the standards and guidelines in which we are to follow as nurses of the operating room. Our surgical time out posters have been created based on AORN standards. (Appendix E) Through the association we can also be referred to journals, educational tools, and relevant studies. According to the AORN data was collected between 1990 and 2010 on never events and the resulting cost to the healthcare system. A "never event" is an event that should have never occurred, the most common never events in the operating room setting are retained surgical items such as sponges, surgery on the wrong side, surgery on the wrong patient, and the wrong procedure performed on the right patient. Between the years of 1990 and 2010 there was 9744 never events reported. The highest median payments are associated with wrong procedure events and average $106,777 paid out for each event. AORN has implemented the surgical time out to specifically prevent wrong site, wrong patient, and wrong procedure surgeries from occurring, had the surgical time out been performed correctly these events would have been prevented.

In 2008 in Florida a 74 year old patient came in for surgery on her right ankle only to wake up in the recovery room and realize that surgery had been performed on her left ankle. There were many errors that occurred throughout the case but the lack of a surgical pause was proven to be the most detrimental. The circulator nurse verified that the correct leg was marked in the preoperative area before the patient was brought back but did not check the mark before she prepped the leg. The left leg was prepped by the nurse and draped by the scrub technician, it was even discovered that the images for the correct leg were placed up on the screen in the room for all to see. The surgical time out should be looked at as the final safety net / check before surgery begins, had all parties been involved in the surgical time out it would have been discovered that the wrong leg was exposed from under the blanket and prepped. "Physicians and nurses who fail to comply with this rule could by subject to professional discipline, whether or

not a wrong site surgery occurs." (Dean, 2008) The laxed attitude towards this crucial policy has proven to result in compromised patient safety.

In November 2012 a 43 year old bus driver presented to a trauma unit with the inability to bear weight on both legs after a traffic accident the day before. After radiologic investigation the patient was scheduled for open reduction and internal fixation of fractures of the left femur and tibia. Upon arrival to the hospital the booking slip and signed surgical consent read internal fixation of fractures of the right femur and tibia, the patient's right leg was prepped and draped in the surgical field. The surgeon had created the incision in the right leg and began surgery, it wasn't until the anesthesiologist spoke up and raised his concern regarding the possibility of a wrong limb surgery that the error was discovered. The surgeon closed up the incision to the right leg and surgery was scheduled a week later for the correct leg. This particular incident was never reported to the appropriate authorities due to shame and the fear of legal action to the involved parties. After some time JCAHO became aware of the incident and many more that had occurred at other institutes that were not properly reported. Of 150 cases that had gone unreported for a long period of time JCAHO classified 76% of them as wrong site surgery. "Wrong site surgery is considered indicative of serious underlying patient safety problems." (Nwosu, 2015) According to Nwosu if the minimum checks of the nurse verifying the surgical site mark in the preoperative area and the surgical time had been performed these wrong site surgeries could have been prevented.

Many times there is an impression that the surgical time out is only to prevent wrong site, wrong patient, and wrong procedure surgeries from occurring, in actuality there is much more that is addressed in an effective surgical time out. With the advancement in technology and more surgeons performing cases robotically we are faced with new patient care challenges. In the surgical time out we discuss the patient's position, is it appropriate? Does the patient have any underlying conditions that would complicate the recommended position? How long will the patient be in this position? Anesthesia considerations with the case positioning? "Robotic surgery is associated with specific positions such as steep Trendelenburg, location of the surgeon away

from the operating table, and obstruction of the patient by robotic arms and extended draping." (Song, Vemana, Mobley, & Bhayani, 2013) Robotic cases can be lengthy in time and it is proposed that a second time out be conducted half way through the case aimed at reducing complications, the most common complication resulting from a long surgical case is the result of positioning. "One of the most common results of improper patient positioning is nerve injury, which accounts for almost one third of anesthesia – related medical – legal claims in the US. Therefore, the second time out serves as an invaluable opportunity to identify and prevent this potential issue." (Song, et al 2013) It is advised in these particular cases that the patient be checked under the drapes for proper positioning, padding, and with particular attention to pressure points.

Psychologist Kathleen Harder PhD from the University of Minnesota has begun a time out campaign in an effort to prevent surgical errors. Harder is presenting her findings and rationales at workshops throughout Minnesota. The campaign was initiated when Harder said that she had been an observer in 8 Minnesota hospital operating rooms. "Many time outs were completely dysfunctional, they just ticked off a list, people weren't listening." (Patterson, 2012) Harder's success in her campaign came from engaging the entire team, each member was given a part of the time out that they were responsible for, it was no longer the surgical nurse reciting the time out and parties merely agreeing. The surgeon initiates the timeout when he or she is ready, in many cases staff is more inclined to give undivided attention to the surgeon as opposed to the circulator nurse. The nurse will read directly from the signed consent the procedure that we will be performing, the anesthesiologist will confirm the date of birth and any medication allergies, and the scrub technician visualizes and verifies and surgical markings. Harder's campaign is a 3 year effort to reduce adverse surgical events, it is currently sponsored by Minnesota Hospital Association and the Minnesota Department of Public Health. After the 3 year campaign span wrong site surgeries have decreased by 23% in Minnesota and continue to decline as Harder's changes to the surgical time out have been adapted as policy.

It has been proven that the surgical timeout has done its intended job in many cases by

preventing wrong site, wrong patient, and wrong procedure surgery and some have argued that there are more possible risks that need to be addressed in the surgical timeout. “Many surgeons negotiate a lifetime of surgical practice without suffering one of these disastrous complications.” (Baxter, Teo, Swift, Polk, & Harken, 2007) Unfortunately surgeons as well as staff may be reluctant to the amount of work and studies that focus on improving the surgical time out because they in their careers have not witnessed such a complication. It has been proposed that there should be expansion of the surgical time out to include risk factors such as DVT prophylactic measures and preoperative antibiotics.

Timeline

The project was initiated the second week of March 2015 with routine daily tracer audits throughout the operating room. The month of March was used as our time to gather our initial data and see where we measured before we could set our ultimate goal. We started our project knowing that we were at a 30% compliance rate and set our ultimate goal of 100% compliance to be seen at the end of August 2015, a 6 month overall time span. A significant factor that we faced was the new staff nurses that came to the operating room during this time, primarily travelers and float RNs requiring education on proper performance.

Expected Results

The overall goal of the project is to obtain 100% compliance while performing the surgical time out. Although 100% compliance does not seem to be a realistic goal right off the bat we do expect to see an increase in compliance as we begin with our interventions. One of the barriers that we encountered was the attitude of staff and the culture surrounding resistance to change. It is difficult to measure attitude to determine if we are improving but we decided that more interaction between staff could assist. One suggestion we have adopted was that we have the current staff nurses do a return demonstration for the new incoming nurses, this was received well and staff even had a good time role playing. Management, our nurse educator and myself agree that 30% compliance is unacceptable and that after this information is relayed to staff we expect to see a significant increase, our interventions will assist in arriving at 100% compliance.

As of last week (beginning of August) we have shown 85% to 90% compliance.

Nursing Relevance

The project outcome will make a significant contribution to the operating room as well as nursing as a profession. I myself being new to the operating room was not aware that as a nurse if you perform a faulty time out you put yourself at risk for legal action should the patient be harmed or not. As nurses we are responsible for taking care of our licensure and assuring that we are up to date on current policy and are compliant. It is our responsibility to be knowledgeable of what is required and expected of us and practice to the best of our abilities.

It is unfortunate that there are patients who have suffered at the hands of those nurses that failed to follow guidelines and perform the surgical time out correctly. In my opinion the surgical time out is just not one of those policies that is taken seriously and this can be contributed to the fact that the majority of nurses and surgeons have not experienced resulting complications due to the faulty surgical time out. The surgical time out needs to be seen as a procedure of value and a crucial part of patient safety, such as the 2 RN insulin check or the procedure in which we follow when transfusing blood. The surgical time out directly affects patient safety and is required to provide quality patient care and allow our patient to have the best chances for post-operative recovery.

Summary Report

After a time frame of 6 months we expect that we will see 100% compliance to the proper performance of the surgical time out, as a result reducing the risk of surgical errors and complications to the surgical patient. We are aiming to improve the conduction and participation of the surgical time out, the process begins with the circulator nurse initiating and leading the surgical time out and ends when all staff members have agreed to case specifics reviewed in the surgical time out. By working on this process we expect that nurses will practice according to hospital policy and the guidelines set by AORN. It is important that we work on this now so that we prevent any sentinel events, surgical errors, near misses, or unnecessary complications to the surgical patient.

The population of the project included the surgical patient, ranging in ages from

adolescent (no pediatric patients) coming in for all areas of specialty surgeries including but not limited to GYN, Orthopedics, Urology, Cysto, Robotic, Laparoscopic, Cardiac, Vascular, General, etc. The operating room was the setting for the project and consisted of 10 surgical suites. The methods that were adopted to implement the project included education, visuals, return demonstrations, role playing, positive reinforcement, and one on one counseling. Our original baseline data showed that we began this project with a 30% compliance rate and much need for intervention to reach proper practice. The teaching aides that were used were placed in the break room, the main OR front desk, and each surgical suite reflecting the current revised surgical time out conduction.

The ending data reflected what we expected in that we would see a significant incline but not quite the 100% compliance rate we are looking for. Our highest compliance rate has reached 90% and we have contributed the margin error to new staff that requires the proper teaching and education. In conclusion I feel that the majority of staff was aware that they were not in compliance with the time out but would proceed anyways due to the rush of the case or surgeon or simply that they had become laxed in practice. Once the data was brought to staff attention and the tracer audits began we saw a quick rise to expectations. Majority of tracer audits were not announced which forced staff to comply with each case.

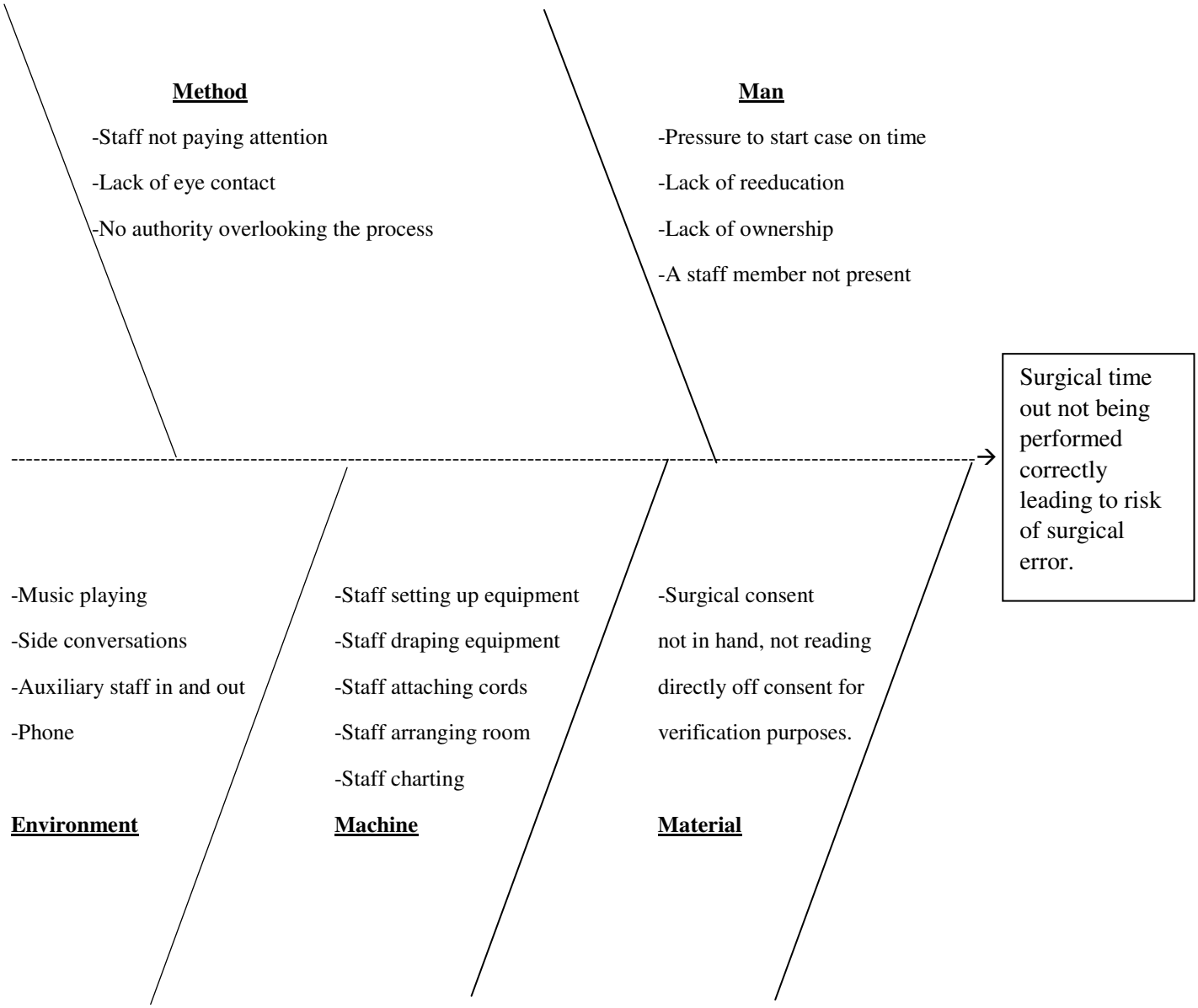
Repetition is seen as a way to increase improvement, my plan for sustainability will have much to do with repetition. The surgical time out is a procedure that is performed with every surgical case so the opportunity to practice / repeat is possible more than one time a day. As staff members in the OR repeat the updated time out the correct way it will reinforce the policy and assist in making it habit. During the Do phase of the SDSA cycle we will be giving and obtaining feedback on what is working well and what is not, any barriers, as well as positive reinforcement. We have discovered that speaking with individuals one on one privately is effective because it holds that individual accountable regarding their faulty performance, but also excludes the embarrassment or anger that would come in a group situation. Positive reinforcement and recognition in the morning huddle however is a nice way to start the day, individuals enjoy being recognized for a job well done.

Tracer audits will continue to be performed on a weekly or bi weekly basis and also as surprise audits to assure we are keeping on track. There will continue to be new barriers, suggestions, concerns, etc. that will arise and the only way to continue to improve is to keep a record, the statistical analysis and numbers will show our progress and sustainability or lack of. The work that is being put into this project has become standard, the nurse educator and unit manager have agreed that tracer audits will continue on a regular basis, nurses who find themselves with down time will perform audits on the surgical time out and data will be reported for analysis. The sustainability concept falls in line with the values / mission statement of the hospital to "enhance the well-being of people in the communities we serve through a not-for-profit commitment to compassion and excellence in health care services."

Appendix A

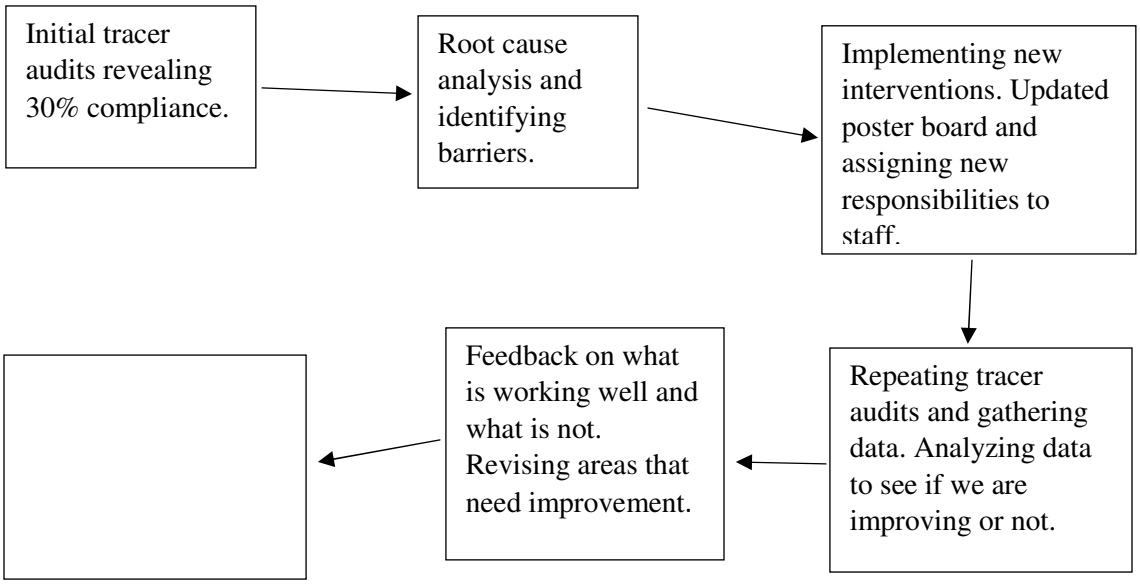
ROOT CAUSE ANALYSIS FISHBONE

ROOT CAUSE ANALYSIS FISHBONE



Appendix B

PROCESS MAP / FLOW CHART



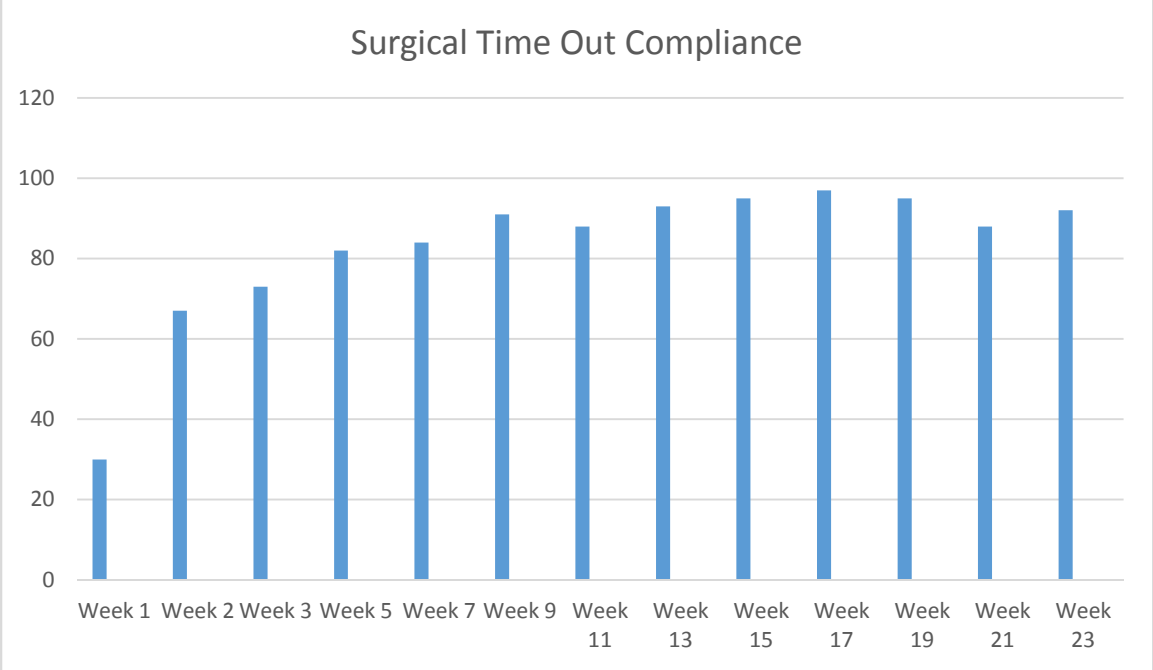
Appendix C

SWOT ANALYSIS

Strengths	**Weaknesses**
What will strengthen my project are the many reported cases of incidents such as wrong side surgery that have left patients with permanent injuries due to lack of attention to the surgical time out.	I am beginning to see and am predicting hesitation and resistance from staff members, primarily those who have been in the OR for a long period of time and set in their ways. It may be a challenge to convince staff of the importance, especially if they have not yet witnessed an error such as a wrong side surgery in their career.
Opportunities	**Threats**
The opportunity that I am most excited for is to educate those that are new to the OR, the new nurses that will be performing the surgical time outs. I myself being a new nurse training in the OR have heard horror stories regarding surgery being performed on the wrong patient, the wrong side, and the wrong site and have made it my personal mission to assure this never happens to any of my patients. I aspire to instill that importance and urgency into the new nurses in the OR.	The threat I can anticipate would be resistance, there will continue to be the individuals who will not see the value. My goal is to continue to stress the importance and provide examples and use case studies as supporting evidence.

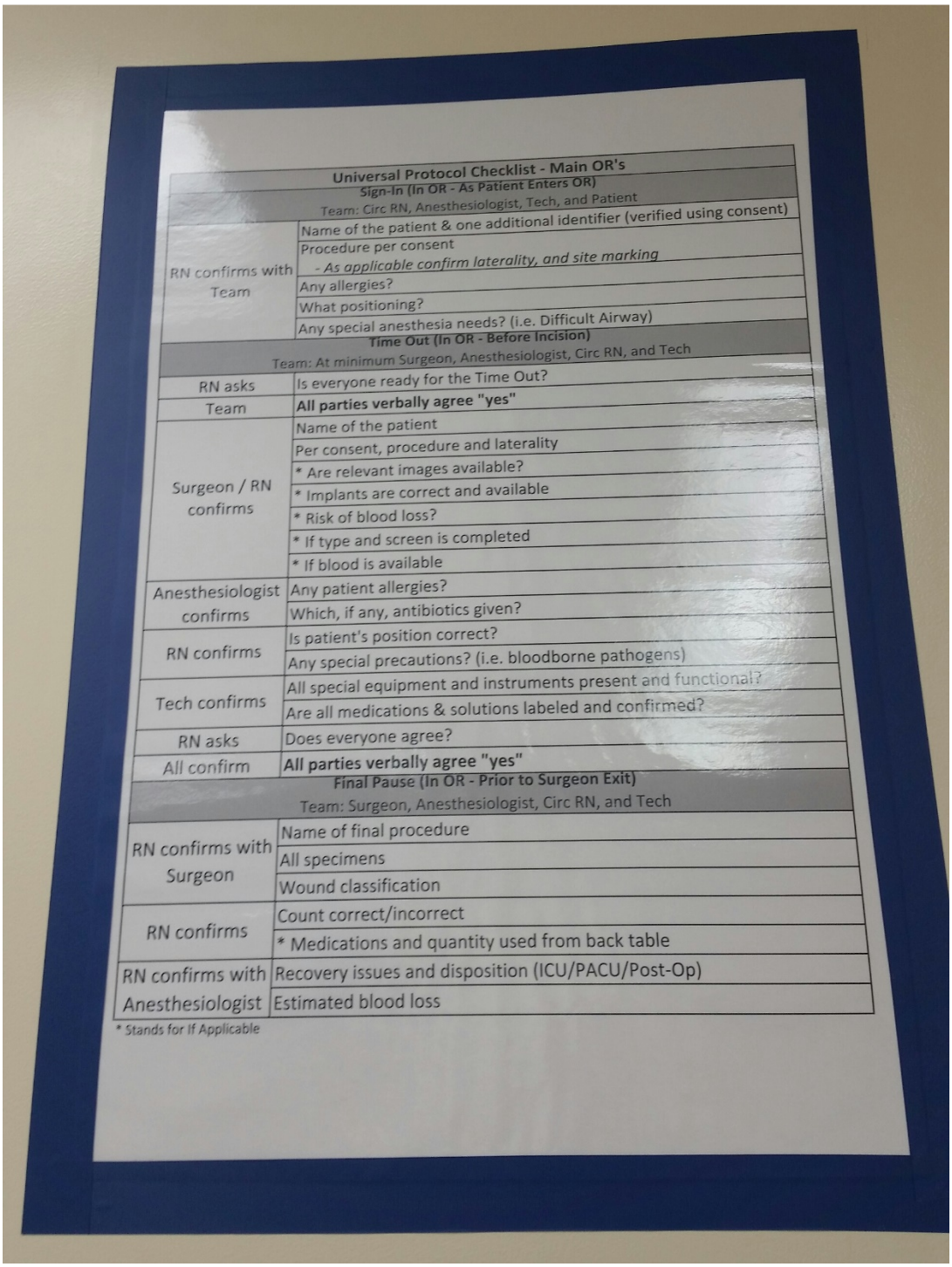
Appendix D

DATA CHART



Appendix E

SURGICAL TIME OUT POSTER BOARD

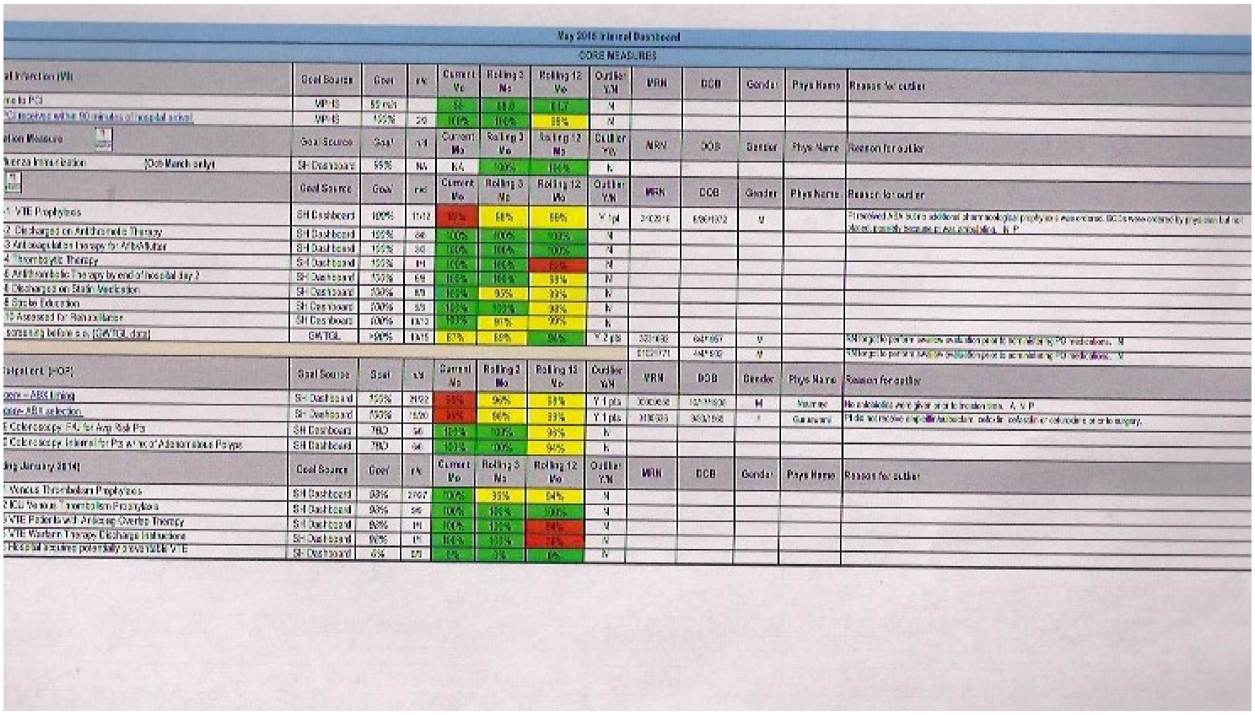


Universal Protocol Checklist - Main OR's	
Sign-In (In OR - As Patient Enters OR) Team: Circ RN, Anesthesiologist, Tech, and Patient	
RN confirms with Team	Name of the patient & one additional identifier (verified using consent)
	Procedure per consent *- As applicable confirm laterality, and site marking*
	Any allergies?
	What positioning?
	Any special anesthesia needs? (i.e. Difficult Airway)
Time Out (In OR - Before Incision) Team: At minimum Surgeon, Anesthesiologist, Circ RN, and Tech	
RN asks	Is everyone ready for the Time Out?
Team	**All parties verbally agree "yes"**
Surgeon / RN confirms	Name of the patient
	Per consent, procedure and laterality
	* Are relevant images available?
	* Implants are correct and available
	* Risk of blood loss?
	* If type and screen is completed
	* If blood is available
Anesthesiologist confirms	Any patient allergies?
	Which, if any, antibiotics given?
RN confirms	Is patient's position correct?
	Any special precautions? (i.e. bloodborne pathogens)
Tech confirms	All special equipment and instruments present and functional?
	Are all medications & solutions labeled and confirmed?
RN asks	Does everyone agree?
All confirm	**All parties verbally agree "yes"**
Final Pause (In OR - Prior to Surgeon Exit) Team: Surgeon, Anesthesiologist, Circ RN, and Tech	
RN confirms with Surgeon	Name of final procedure
	All specimens
	Wound classification
RN confirms	Count correct/incorrect
	* Medications and quantity used from back table
RN confirms with Anesthesiologist	Recovery issues and disposition (ICU/PACU/Post-Op)
	Estimated blood loss

* Stands for If Applicable

Appendix F

MAY 2015 DASHBOARD



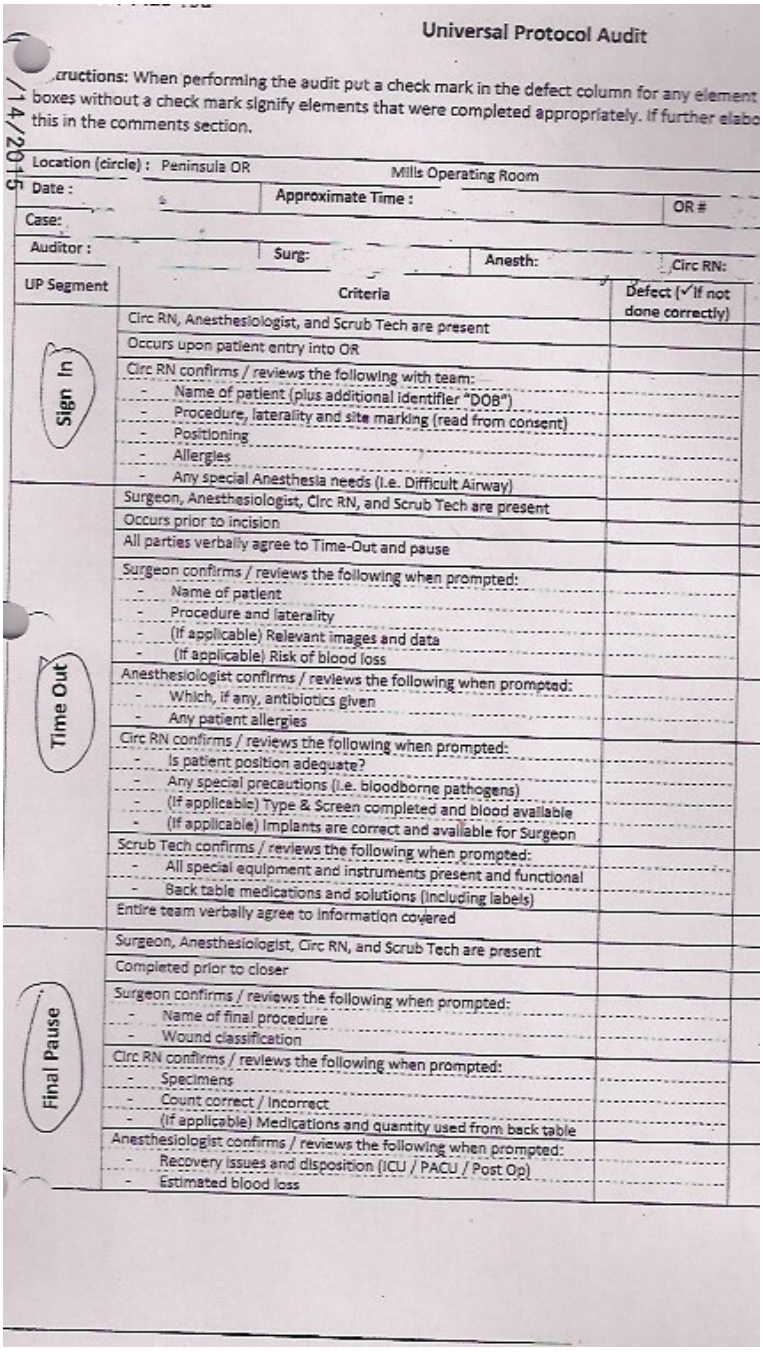
May 2015 Internal Dashboard

CORE MEASURES

...al Infarction (MI)	Goal Source	Goal	n/N	Current Mo	Rolling 3 Mo	Rolling 12 Mo	Outlier Y/N	MRN	DOB	Gender	Phys Name	Reason for outlier
...me to PCI	MPHS	55 min		55	58.0	61.7	N					
PCI received within 90 minutes of hospital arrival	MPHS	100%	2/2	100%	100%	95%	N					
...tion Measure	Goal Source	Goal	n/N	Current Mo	Rolling 3 Mo	Rolling 12 Mo	Outlier Y/N	MRN	DOB	Gender	Phys Name	Reason for outlier
...luenza Immunization (Oct-March only)	SH Dashboard	95%	NA	NA	100%	100%	N					
	Goal Source	Goal	n/d	Current Mo	Rolling 3 Mo	Rolling 12 Mo	Outlier Y/N	MRN	DOB	Gender	Phys Name	Reason for outlier
...1 VTE Prophylaxis	SH Dashboard	100%	11/12	92%	98%	99%	Y 1 pt	[illegible]	[illegible]	M		Pt received [illegible] but no additional pharmacological prophylaxis was ordered. [illegible] ordered by physician but not [illegible], possibly because pt was ambulating. N, P
...2 Discharged on Antithrombotic Therapy	SH Dashboard	100%	8/8	100%	100%	100%	N					
...3 Anticoagulation Therapy for AFib/Flutter	SH Dashboard	100%	3/3	100%	100%	100%	N					
...4 Thrombolytic Therapy	SH Dashboard	100%	1/1	100%	100%	67%	N					
...5 Antithrombotic Therapy by end of hospital day 2	SH Dashboard	100%	6/6	100%	100%	99%	N					
...6 Discharged on Statin Medication	SH Dashboard	100%	6/6	100%	95%	99%	N					
...8 Stroke Education	SH Dashboard	100%	5/5	100%	100%	98%	N					
...10 Assessed for Rehabilitation	SH Dashboard	100%	10/10	100%	91%	99%	N					
...screening before p.o. (GWTGL data)	GWTGL	>90%	13/15	87%	89%	96%	Y 2 pts	[illegible]	[illegible]	M		RN forgot to perform swallow evaluation prior to administering PO medications. M
								[illegible]	[illegible]	M		RN forgot to perform swallow evaluation prior to administering PO medications. M
...utpatient (HOP)	Goal Source	Goal	n/N	Current Mo	Rolling 3 Mo	Rolling 12 Mo	Outlier Y/N	MRN	DOB	Gender	Phys Name	Reason for outlier
...gery – ABX timing	SH Dashboard	100%	21/22	95%	96%	98%	Y 1 pts	[illegible]	[illegible]	M	[illegible]	No antibiotics were given prior to incision time. A, N, P
...gery ABX selection	SH Dashboard	100%	15/20	95%	96%	99%	Y 1 pts	[illegible]	[illegible]	F	[illegible]	Pt did not receive ampicillin/sulbactam, cefazolin, cefoxitin or cefuroxime prior to surgery.
...Colonoscopy F/U for Avg Risk Pts	SH Dashboard	TBD	5/6	100%	100%	96%	N					
...Colonoscopy Interval for Pts w Hx of Adenomatous Polyps	SH Dashboard	TBD	6/6	100%	100%	94%	N					
...ing January 2014)	Goal Source	Goal	n/N	Current Mo	Rolling 3 Mo	Rolling 12 Mo	Outlier Y/N	MRN	DOB	Gender	Phys Name	Reason for outlier
...1 Venous Thromboembolism Prophylaxis	SH Dashboard	93%	27/27	100%	95%	94%	N					
...2 ICU Venous Thromboembolism Prophylaxis	SH Dashboard	93%	5/5	100%	100%	100%	N					
...3 VTE Patients with Anticoag Overlap Therapy	SH Dashboard	92%	1/1	100%	100%	84%	N					
...5 VTE Warfarin Therapy Discharge Instructions	SH Dashboard	90%	1/1	100%	100%	75%	N					
...6 Hospital acquired potentially preventable VTE	SH Dashboard	0%	0/0	0%	0%	0%	N					

Appendix G

AUDIT SHEET



Universal Protocol Audit

...ructions: When performing the audit put a check mark in the defect column for any element boxes without a check mark signify elements that were completed appropriately. If further elabo this in the comments section.

/14/2015

Location (circle) : Peninsula OR Mills Operating Room

Date : Approximate Time : OR #

Case:

Auditor : Surg: Anesth: Circ RN:

UP Segment	Criteria	Defect (✓If not done correctly)
Sign In	Circ RN, Anesthesiologist, and Scrub Tech are present	
	Occurs upon patient entry into OR	
	Circ RN confirms / reviews the following with team:	
	- Name of patient (plus additional identifier "DOB")	
	- Procedure, laterality and site marking (read from consent)	
	- Positioning	
	- Allergies	
	- Any special Anesthesia needs (i.e. Difficult Airway)	
Time Out	Surgeon, Anesthesiologist, Circ RN, and Scrub Tech are present	
	Occurs prior to incision	
	All parties verbally agree to Time-Out and pause	
	Surgeon confirms / reviews the following when prompted:	
	- Name of patient	
	- Procedure and laterality	
	- (If applicable) Relevant images and data	
	- (If applicable) Risk of blood loss	
	Anesthesiologist confirms / reviews the following when prompted:	
	- Which, if any, antibiotics given	
	- Any patient allergies	
	Circ RN confirms / reviews the following when prompted:	
	- Is patient position adequate?	
	- Any special precautions (i.e. bloodborne pathogens)	
	- (If applicable) Type & Screen completed and blood available	
	- (If applicable) Implants are correct and available for Surgeon	
	Scrub Tech confirms / reviews the following when prompted:	
	- All special equipment and instruments present and functional	
	- Back table medications and solutions (including labels)	
	Entire team verbally agree to information covered	
Final Pause	Surgeon, Anesthesiologist, Circ RN, and Scrub Tech are present	
	Completed prior to closer	
	Surgeon confirms / reviews the following when prompted:	
	- Name of final procedure	
	- Wound classification	
	Circ RN confirms / reviews the following when prompted:	
	- Specimens	
	- Count correct / Incorrect	
	- (If applicable) Medications and quantity used from back table	
	Anesthesiologist confirms / reviews the following when prompted:	
	- Recovery issues and disposition (ICU / PACU / Post Op)	
	- Estimated blood loss	

References

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