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Staff Education Project to Decrease Variations in Surgical Optimizations

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
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Walden University
2023

Abstract

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MS, Walden University, 2011

BS, Humboldt State University, 1988

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The COVID-19 pandemic brought to light the fragmented process in the preoperative screening and optimization of surgical patients, including the need to identify and address the variation in the patient surgical preparation process to decrease the same day surgical cancellation rate. This gap in practice was addressed by a staff education project for the preoperative call (POC) nurses on a revised patient optimization process to ensure patient safety with timely workups and coordinated care for surgical patients. The practice-focused question for this project examined the effectiveness of staff education to increase nurse knowledge about the new process flowchart, leading to a reduction in workflow variation. The project was supported by the Kurt Lewin framework to prepare the POC nurses and the multidisciplinary team for the change in the workflow. The data were obtained by developing a pretest and posttest questionnaire to establish baseline knowledge and identify variations in the POC process. The mean pretest score of the 5 POC nurses on questionnaire was 74% correct answers. Questions on process, standard of care, and communication answered incorrectly included questions about who to call when a patient was identified as not optimized for surgery and whether the surgery needed to be postponed or cancelled, the location of and timelines related to the new guidelines for the POC workup, and the steps required to prepare for and verify the POC. After the education, the mean posttest score was 90%. The staff education project will impact social change through improved communication, timeliness, and standardization of the workflow process to ensure that patients can safely proceed with planned surgeries.

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Dedication

This dissertation and my doctoral achievements are dedicated to my husband Keith, my daughters Atalie, Alaina, Amelie, my son Nicholas, and my preceptor Lisa Orth. They have provided me continued support to carry me through the days when this journey seemed impossible.

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Dr. Sue Bell, Committee Chair, who kept me focused to complete this project.

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To all my work colleagues, thank you for your continued guidance and support.

To the Perioperative Director, Assistant Chief Executive Nurse, and Physician OR Director at the medical center, I could not have completed this work without each of you supporting this project.

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Section 1: Nature of the Project

During the past several years, the pandemic brought light to the fragmented process in the perioperative screening and optimization at the hospital site for the Doctor of Nursing practice (DNP) project. The pandemic impacted the health care organization's ability to facilitate patient clearance for elective or non-urgent surgical procedures. There was a gap in the preoperative call process for the nurses to screen a surgical patient's chart and communicate with the multidisciplinary team about specific patient concerns. The variations in practice were identified for surgical patient workups requiring nursing staff to coordinate with other key disciplines and departments for surgical optimization. The lack of consistency across the integrated system impacted the ability to provide standardized care, evidence-based surgical screening evaluations, and patient optimization completion in a timely and coordinated manner to meet the planned surgery date. As a result, the administrators identified the need to develop a staff education project to standardize the workflow of the pre-op call by POC nurses. The DNP project included staff education on the standardized process for surgical clearance that includes evidence-based practices (EBP) to support the preparation of the patient for surgery once the patient has completed the appropriate required workup determined by the perioperative medicine (POM) providers and has been cleared by the multidisciplinary team for a surgery date.

Efficient surgical preparation processes are pivotal for providing safe surgeries (AORN, 2021). Nurses are instrumental in teaching to promote compliance and improved overall health to support patient surgical readiness and high-quality patient outcomes.

POC nurses play a crucial role in preparing patients for their surgery through pre-op education, reviewing the completion of lab workups including, but not limited to, COVID-19 surveillance screening and verifying complete cardiac clearance and other ancillary test results. The POC nurses must ensure the patients have been adequately educated, prepared, and cleared for the upcoming surgery. Validating surgical optimization by POC nurses is key in providing a surgical pathway that promotes quality and improves outcomes, including reducing same-day surgical cancellations (Croke, 2021).

Problem Statement

The problem this project addressed was the variations in the patient surgical preparation process. The initial literature review focused on the factors affecting care delivery systems that are fragmented, costly, and inefficient, leading to patient and organizational dissatisfaction. One patient safety practice advocated for by the Agency for Healthcare Research and Quality (AHRQ) is the need to focus on timely treatment to optimize patients' outcomes (Shoemaker et al., 2020). The failure to ensure patient optimization with subsequent case cancellation can lead to increased risk for the patient if the surgery is not rescheduled. Nurses can positively impact patient care outcomes and drive system changes by addressing lapses in communication, a known contributing factor to delayed diagnosis and treatment for patients in ambulatory and inpatient settings.

Patient care is becoming increasingly complex as patients require the management of multiple comorbidities that increase their risk when undergoing surgery. Mitigating

these risk factors and taking proactive steps to optimize patients' health before surgery will provide both the patient and the organization with the benefit of surgeries proceeding safely and as scheduled (Croke, 2021). The current variation in the preoperative screening process for surgical patient readiness brings attention to the importance of a standardized process for the POC nurses to follow in coordinating with the multidisciplinary team for surgical patient optimization. Same day surgery cancellations lead to poor productivity, increased waste, and patient dissatisfaction with the care experience. These outcomes can be improved through effective nursing leadership and by developing a staff education project to reduce the variation in the POC screening process.

Supporting the need for the DNP project, the current POC process did not have a standardized workflow for COVID-19 screening, chart review, and pre-op calls to the patient the day before surgery. The nurse's sole role was sending patients a secured email with surgery arrival time, nothing by mouth status, chlorhexidine gluconate bath information, and directions to the facility. The COVID-19 pandemic immediately required screening patients for the disease prior to elective surgeries. The POC nurses became instrumental in this workflow revision so elective surgeries could resume. The staff education project has taught the POC nurses about the new standardized process flowchart for use in coordinating surgical patient preparation and communication with the surgeons, anesthetists, and the POM providers. The in-person staff education has improved staff understanding of the surgical optimization flowchart and how it provides guidance to coordinate the patients' needs before the day of surgery.

The nurses need to be armed with knowledge founded on EBP guidelines of how

to safely navigate the risks of COVID-19 and comorbidities in surgical patients. The screening process had evolved into a comprehensive confirmation of the patient's required workup determined by the POM providers and other specialists involved in the patients' care. Creating a standard of work for the POC nurses and a flowchart on the accountability of the work the hospital has identified the importance of collaboration among the many multidisciplinary team members. The POC nurse is instrumental in team communication and patient care coordination, and POM provider involvement to ensure the patient is medically optimized for surgery within a designated period.

Corroborating the need for standardization, the American College of Surgeons (2020) Optimal Resources for Surgical Quality and Safety or "Red Book" focuses on the macro systematic approach to standardizing, improving, and measuring outcomes to support the patient's participation in the surgical optimization process. National attention on surgical safety has led to data collection aimed at safety, quality, service, and care delivery initiatives that can reduce same day patient cancellations (ACS, 2020). The literature review provided strong supporting evidence focused on safety checklists to reduce surgical risk. For a surgical checklist to be useful in transitioning patients from pre-surgery to the day of surgery, a multidisciplinary team must agree on and adhere to the standardized pre-op screening process (CAHPS, 2020).

Purpose Statement

The purpose of this staff education project was to teach the POC nurses about the new standardized flowchart to close the practice gap in coordinating surgical patient preparation in collaboration with the surgeons, POM staff, the anesthesia providers, and

other key stakeholders involved in the patients care. The variations in practice for surgical patient workups require nursing staff to coordinate with other key disciplines and departments for surgical optimization. The practice focused question addressed in the project is: "Will the staff educational project increase knowledge about the new flowchart, leading to a reduction in workflow variation across POC nurses and improved communication between the POC nurses and the multidisciplinary team?" This doctoral project has increased visibility of the POC nurses' responsibility to ensure the patient is medically optimized for surgery within the designated time through team communication and patient care coordination. The improved workflow has been achieved by the POC nurses verifying the patient has seen the POM provider and has received clearance for surgery. The doctoral education project has provided in person staff education of the surgical optimization flowchart and how to use it. This has addressed the current gaps in practice by developing standard of work for the POC nurses to follow standardizing patient care for surgical readiness using the flowchart.

Nature of the Doctoral Project

The literature search was used for evidence to support a practice improvement through the development of a staff education project in the setting of a 169-bed inpatient facility with a perioperative services department consisting of 10 pre-op bays, eight OR suites, and 16 recovery room bays. The OR performs between 8,500 and 9,200 surgeries annually. There are five dedicated POC nurses assigned to the specific work affected by the development of the new flowchart.

The literature review incorporated an electronic data search conducted using the

Walden Library and the onsite Medical Library at the organization to access the Cumulative Index to Nursing and Allied Health Literature (CINAHL) COMPLETE, Cochrane Database, OVID, Pub Med, and Medline databases. The databases were searched using these keywords and Boolean phrases: *surgery cancellations*; *day of surgery cancellation*; *preoperative assessments*; *patient, surgical, nurse screening*; *optimization*; *communication*; *education*; and *health behavior*. Limitations were English only, peer reviewed, and recent publications between 2015 and 2022. The evidence search included randomized controlled trials, systematic reviews, quasi-experimental studies, descriptive and qualitative studies, and opinions of expert committees and authorities. Of the 1,657 articles found using the search criteria, 20 of them were reviewed for pertinence to the project question. The articles selected for the literature review focused on the themes affecting care delivery systems which are fragmentation, cost, inefficiency, poor communication, and lack of nursing patient advocacy and education. The Johns Hopkins Nursing Evidence-Based Summary Tool was used to organize and analyze the evidence obtained from the literature search and to document the integrated review and synthesis of the literature.

A second source of evidence used in this doctoral project is the pretest and posttest data collected from the nurses before and after the education to determine if there has been an increase in knowledge about the new process flowchart and its application. The ongoing development of the staff education project for the POC nurses will continue the improvement of patient safety with timely workups, optimized patients, and enhanced patient care experiences with seamless, coordinated care across the continuum for

surgical patients.

Significance

The local stakeholders in this doctoral project include the organization, frontline staff, the physician operating room director (PORD), the director of perioperative services, the educator, the chief nurse executive (CNE), the POM providers, the patient care provider (PCP), surgeons, anesthetists, certified registered nurse anesthetists (CRNA), POC nurses, and surgery clinic staff, such as the medical assistants (MA), nurse practitioners (NP), physician assistants (PA), registered nurses (RN), and ancillary department staff. It is critical to establish a diverse panel of experts to bring value to the education on the standardized workflow, reflecting input from all the stakeholder groups. Presenting the staff education project to the stakeholders and end-users/local experts has reinforced the finalized agreements as EBP and feasible for adherence and change sustainability. Involving those who the work impacts is key for buy-in and allows them to provide recommendations for the change. These key stakeholders have collaborated with me and lead POC nurses to improve surgical patient readiness with agreements of the standardized workflow and flowcharts to be used to provide a framework for the POC nurses to follow. A standardized pre-op call process engages nurses to work at the top of their licenses and to lead change in the organization. This project may influence the sister facilities to adopt similar education as it would be recognized as contributing to consistent application of best practices supported by the evidence.

The doctoral project has created equitable access to surgical care through developing standardized processes to optimize patients for perioperative services. There

are potential implications for positive social change by instituting this doctoral education project to instill a standardization process to optimize patients. This project can impact social change for all patients who receive the same support despite their circumstances and care individually customized to achieve medical optimization based on each patient's health care needs. The various disciplines must work together to develop timelines for achieving the shared goal of seamless surgical patient management. This project has led to a practice change and nursing professional growth that has reduced the variations in the preoperative screening process and improved patient outcomes, including patient satisfaction with care.

Summary

This project focused on staff education to reduce the variations in surgical patient optimization. The practice variation in the preoperative screening process for surgical patient readiness brought attention to the importance of a standardized process for the POC nurse to follow in coordinating with the multidisciplinary team for surgical patient optimization. The practice-focused question addressed whether the in-person staff education would improve staff education of the surgical optimization flowchart and how to use it. The development of standardized workflow for POCs has reduced the variation of work and improved communication among the multidisciplinary team. The purpose of this staff education project was to teach the nurses about the new standardized work and optimization flowchart for coordinating surgical patient care in collaboration with the surgeons, POM providers, anesthesia providers, and other key health care workers and stakeholders involved in the patients' care.

Section 2: Background and Context

The clinical practice problem this doctoral project addressed was the lack of staff knowledge related to the new flowchart to optimize surgical readiness and reduce surgical gaps in the pre-op screening process. The absence of POC nurses in preparing patients for surgery is being recognized in the organization. The multiple disciplines involved in surgical readiness preparation has impacted the ability of the organization to provide standardized care, conduct evidence-based surgical screening evaluations, and complete patient optimization in a timely and coordinated manner to meet the planned surgery date. The practice focused question this doctoral project addressed is whether a staff educational project increased the POC nurses' knowledge about the new flowchart, leading to a reduction in workflow variation across the POC nurses and improved the communication with the multidisciplinary team. This doctoral project addressed the gap in practice so that the POC nurse can standardize the patient surgical readiness process.

Concepts, Models, and Theories

The Kurt Lewin model for organizational change has guided the development of the staff education project and supported its quality and effectiveness evaluation. The project followed the three phases of the model of change, which required additional information at each step to query the organizational readiness as it moved through the phases of change. The first phase of this change was to unfreeze the current process (White et al., 2021). This step included getting staff ready for the change and articulating the vision. This first phase requires people to let go of traditional behaviors. A plan is developed once the problem has been pinpointed and characterized, solutions identified,

and organizational readiness to support the change initiative determined. In preparation for the current project, the key stakeholders of the multidisciplinary team were identified to collaborate regarding their workflows and perceptions of how the POC nurses are integrated into the process of assisting with patient preparation for surgical readiness. Ongoing communication with stakeholders is important to reinforce the need for the shared mental model of the change process.

Lewin's second phase of change is moving the organization to a new state (White et al., 2021). In this step, the project was implemented to execute the change and manage the environment surrounding the change. Lewin's model posits change to be effective; champions are required to drive it. Three champions were identified who embraced the change and saw the opportunity to incorporate the components of the new flowchart into the workflow to standardize the POC process for surgical readiness of patients. This change was necessary for the organization to thrive and enact positive changes in the POC surgical readiness process. The POC team nurses have the new knowledge necessary to transition smoothly with the newly developed flowchart.

The final phase in Lewin's model is refreezing to sustain the new practice within the organization once the change has been implemented (White et al., 2021). The refreezing is to ensure the change is permanent and brings along the late adopters of the change. The refreezing included the POC nurses adhering to the new flowchart promoting standardization for surgical optimization through team collaboration with the key stakeholders and finalizing agreements with end-users and local experts. The effectiveness of the change will be determined by the organization's ability to modify

their strategies, processes, and structures (Hussain et al., 2016). Applying Kurt Lewin's model provided the structure to monitor the effectiveness of the change in practice to determine if it closes the gap in patient care for surgical readiness. In addition, the planned staff education project instilled a shared mental model (Lewin's model for organizational change) with the multidisciplinary team to encourage buy-in for future change recommendations.

Relevance to Nursing Practice

Efficient surgical preparation processes are pivotal for providing safe surgeries (AORN, 2021). Nurses are instrumental in teaching to promote compliance and improved overall health to support patient surgical readiness and high-quality patient outcomes. Validating surgical optimization by the POC nurse is a crucial step in providing a surgical pathway to promote quality and improved outcomes, including a reduction in same-day surgical cancellations (Croke, 2021). Like most hospitals, this hospital is driven by metrics that reflect outcomes represented by scorecards, Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores, patient satisfaction surveys, and regulatory agencies' certifications/licensing for the facility to provide patient care services.

Same day surgery cancellation is an ongoing problem for this organization leading to increased costs, waste, and patient dissatisfaction. Most surgery cancellations are due to existing unknown patient health information not available to the health care provider during the surgical preparation and planning time causing up to 50% of the avoidable cancellations. According to the patients' perspective, lack of coordination of

care among the various healthcare providers and poor scheduling processes contribute to their surgery being canceled (Dyb, 2019). The reasons for surgery cancellation vary, but the causes need to be reconciled in this integrated system, which requires nurses to have a significant voice in this process. In recent years, it has been recognized nursing staff are underutilized when policies are being developed to improve patient care outcomes. Nursing leaders need to be included as stakeholders to help drive the nursing professional practice to improve gaps in delivery of patient care. The POC staff education project is an important aspect of integrating the nurses' scope of practice within the work with the multidisciplinary team to standardize the workflow that will eliminate the fragmented care leading to same day surgery cancellations, patient confusion with conflicting instructions, and patients not being appropriately optimized for their planned surgery. All these things can contribute to poor patient care. The DNP essentials supported by nursing leadership play a pivotal role in health care policy, financial stewardship, and instructional technology support of patient care delivery systems. It takes strong leadership to acquire the support from their facilities to sustain improved patient care outcomes (American Association of Colleges of Nursing, 2006).

The relevance to nursing practice is the patient advocacy role nursing vows to protect fiercely. Nurses must govern their own practice, advocate for their patients, and stay informed of best practices founded on evidence-based research so they can participate in making clinical decisions that will improve healthcare outcomes. Nurses must show strong engagement and involvement with the development of patient care programs so they can identify the gaps in the process and speak to the fundamentals of

nursing care to properly support the patient (Armoeyan et al., 2021).

Newer literature shows the physical and psychosomatic impact a same day surgery cancellation has on the patient and the role of compassionate care by the nurse has on the patient during this time of receiving this distressing news (Viftrup et al., 2020). Improving the screening process tool and having a defined process to communicate to the multidisciplinary team was demonstrated in one study to decrease the same day surgery cancellation rate by 45% (Williams et al., 2021). The POC nurses' role is to promote surgical readiness through delivering preoperative education to increase patient knowledge and establish open communication among the POC nurses and the multidisciplinary team (Torres et al., 2019). As nurses take on an active role in shared governance, implementing formal structures and processes will allow frontline nurses to be involved in the organization's decisions about patient care delivery. These types of platforms have positively influenced patient care experiences measured by HCAHPS scores as nurses are engaged with the leadership of the organization to lead the work (Kutney-Lee et al., 2016).

Nurses are the conduit for collaboration with other healthcare providers to manage the transition of patients across the healthcare continuum, ensuring patient safety and cost effectiveness of care. The literature shows health care facilities can reduce their same day surgery cancellation rate through a well-defined and developed preoperative process where the nurses have a role in the screening process for confirming the patient's surgical readiness. There will always be last-minute cancellations because of a change in the patients' medical conditions. What is important to recognize is the causes of same day

surgery cancellations and the opportunities the organization must reduce same day surgery cancellation rates (Olson & Dhakal, 2015). Developing a standardized workflow for the POC nursing process is expected to bridge the current gaps in patient care and improve communication and patient care coordination with the multidisciplinary team. The research literature supports the importance of health care workers taking a team approach to close the gap in different stakeholder groups' priorities as the patient is being prepared for surgery. Improving the healthcare delivery system requires efficiency, quality, attention to health disparities, and the integrated knowledge and skills of multidisciplinary teams (Chen et al., 2016). This doctoral project has improved the POC nursing process in how to use a surgical optimization flowchart through implementing the staff education to standardize the work agreed upon by the providers.

Local Background and Context

The local organization has had surgery cancellation rates increase up to 25% which is higher than the National Benchmark of 5% or less (Olsen & Dhakal, 2015). The surgical process workup used by the POC nurses has been deficient and without a clear flowchart to navigate the POC process. Additionally, the POC nurses have not been incorporated with the other members of the multidisciplinary team who have a role in preparing the patient for surgery and medically optimizing them for their planned surgery date.

The practice setting for the DNP project is an acute care hospital that provides services to both inpatients and outpatients. The hospital offers 169 inpatient beds in addition to maternity, emergency room, outpatient radiology, laboratory, pharmacy, and

health education services. The perioperative department consists of 10 designated pre-op spaces and 16 post anesthesia care unit spaces that can accommodate the ebb and flow of the daily cases reaching the high 40s. The annual case volume ranges from 8,500 to 9,200. The OR includes a total of eight OR suites accommodating pediatric and adult surgery types including: general, plastics, orthopedics, trauma orthopedics, podiatry, interventional pain, neurologic, vascular, thoracic, gynecological, urology, ophthalmology, ear-nose-throat (ENT), oral maxillofacial surgery (OMFS), and pediatric dental cases.

The organization supports EBP to improve the delivery of safe patient care through proper care coordination driven by professional nursing practice aligned with the goal to achieve Magnet Status. The key stakeholders support the mission and vision of professional nurse practice and have provided resources to this end. The voice of nursing is a pillar in the design of high-quality care delivery. Through introducing a practice change, nurses can work at the top of their licenses to lead a change in the system with a focus on population-based preventive nursing interventions (Childers et al., 2019). Nurses need to be involved with their organization's goals and their work aligned with strategic nursing plans for resources to be used appropriately to support projects leading to a successful practice change.

Crossing the Quality Chasm (Institute of Medicine, 2001) advocated for a fundamental redesign of the United States healthcare system. The committee focused on how to execute care safely using appropriate resources and treatments. The committee has identified six aims to improve healthcare quality, stating care should be: safe,

effective, patient centered, timely, efficient, and equitable. These quality pillars align with the doctoral project to address the variation in the patient surgical preparation.

The department of public health is responsible for protecting patient safety in hospitals. Their mission is to advance the health and well-being of the state's diverse population in communities it serves, and the vision is to promote healthy communities with thriving families and individuals (California Department of Public Health, 2023). The other governing body is The Joint Commission on Accreditation of Healthcare Organizations (JCAHO), which developed National Patient Safety Goals (NPSG) specific to communication barriers in healthcare and how to enhance communication resiliency and reliability to improve patient safety everyday (JC, 2021). In March 2020, the World Health Organization declared the COVID-19 pandemic and a nationwide debate on the safety and feasibility of performing elective surgeries ensued (Stahel, 2020). The complexity of patients who have multiple comorbidities is challenging for the health care team and requires balancing best medical practices with the patients' values and their preferences (Goeddel, 2014). The standardization of the POC surgical screening has reduced variations in practice to achieve quality, reliable health care delivery with deliberate communication with the appropriate multidisciplinary team members involved with the surgical patients' preparation. The literature supports guidelines to improve patient care through application of evidence and uniformity in practice. Taking appropriate steps to reduce variation in the POC process has led to improved quality of the healthcare services provided in the organization.

Role of the DNP Student

I am currently an employee for the local organization as an Operating Room Manager. During the past few years, during the pandemic, I became the manager for all perioperative services. This included oversight of the pre-op staff, OR staff, and the recovery room staff. During this time, it became a critical point for our department to plan safely how to proceed with elective surgeries with minimal knowledge of the COVID-19 virus and how to navigate staff and patient safety in the healthcare setting. These were uncharted waters and it immediately demanded attention to creating new workflows. This was when I recommended that the POC nurses become actively involved with the redesign of the POC process and collaborate with the surgery clinics to develop expanded workups for the surgery patient. As we had to immediately cancel all elective cases, the landscape of perioperative services changed dramatically. As of last year, a new manager has been hired for the pre-op department and the recovery room. I am currently involved in mentoring the new manager in his role. Being a mentor provides me the privilege to share wisdom, see different perspectives, participate in work with a thought partner, gain insight, share experiences, and offer encouragement.

My doctoral project is focused on a staff education project to standardize the POC process to improve the patients' optimization. I have been able to empower nurses to be engaged and seek opportunities to be a change agent to improve the redesign of nursing care programs founded on best practices. This has been an opportune time as the organization has started the work to achieve Magnet Status. There is active recruitment promoting the advancement of nursing by challenging them to advance their education,

achieve national certification, and implement an EBP to improve patient care outcomes. This supported nursing practice environment has afforded me the opportunity to collaborate with key stakeholders to close the gap in the POC process by standardizing the work and having the POC nurses take an active role in the multidisciplinary team to contribute to patient optimization and surgical readiness.

My role in this doctoral project was to develop a staff education project to improve staff education of the surgical optimization flowchart and how to use it. This has improved the variations in surgical optimization at the local organization. I have collaborated with the PORD, the chief of perioperative medicine, the chief of anesthesia, frontline staff, and other key stakeholders to seek their expertise to standardize the workflow reflecting their input. I have worked with leadership to finalize agreements recommended by key stakeholders, end-users, and local experts. The nurses have provided informed consent to participate in the project by voluntarily attending the staff education program. The pretest and post-test created to measure knowledge gain will remain de-identified and anonymous. The results will purely measure the effectiveness of the education in improving the POC nurses' knowledge to use the newly developed flowchart.

My motivation for this doctoral project is to advocate for patients to receive improved coordinated care in this integrated healthcare system so they are no longer impacted by a fragmented system as the gaps in patient care have been identified and solutions have been decided to improve the patients experience with proper optimization and surgical readiness in the appropriate time. It is a disheartening experience to have to

tell a patient they are being canceled due to an abnormal lab value. When you have a face-to-face encounter with the patient, there is no service recovery that can be remotely acceptable in the patient's view. It is clearly a broken system that creates doubt in patients about their healthcare providers and creates discontentment, lack of trust, fear, and pure disappointment.

Role of the Project Team

The project team consists of the organization's upper leadership, providers of multiple disciplines, departmental leaders, frontline staff, and other key stakeholders. The project team provided guidance and support in the development of the enhanced POC flowchart to reduce variations in surgical optimization. The staff education project has incorporated the project team for planning, implementation, and an evaluation strategy so they can all be a part of its implementation. As they reviewed the current problem and worked to address the gaps in the POC screening process, there was a new appreciation for the knowledge deficit across the organization leading to the failure of surgical readiness and higher than acceptable same day surgery cancellation rates.

The current data shared by the senior staff assistant who runs the internal reports of same day surgery cancellations show the trend rate specific to our organization reflecting variations in surgical optimization supports the need for this doctoral project. The current workflow among the departments works in silos and has no guidelines to coordinate the patient care, concerns, or needs. The team has an incredible opportunity to streamline and standardize the care, so it is coordinated, timely, and efficient. There are now new meetings to improve workflows and synchronize processes in each department

to best support the needs of the patients for their planned surgery. Additional evidence from the Outpatient and Ambulatory Surgery CAHPS (OAS CAHPS) has reflected the opportunity to improve the patient care experiences as they receive services to prepare them for safe surgery. The new flowchart for the POC nurses was completed by mid-March. The education of the nurses took place on July 31, 2023. This timeline allowed time for team feedback and an opportunity to crosswalk the new POC process with the work of the multidisciplinary team to see if the desired outcomes are achievable.

Summary

The articles selected for the literature review focused on themes affecting care delivery systems that are fragmented, costly, inefficient, lack patient centered care, and reported low patient satisfaction. The literature addresses the financial losses due to the waste with same day surgery cancellation and system inefficiencies. A review of the selected articles shows system themes that are predictive indicators will support the redesign of the POC staff education project to reduce variations in surgical optimization through improved communication, education, and collaboration with the multidisciplinary team with clearly defined roles and expectations. These articles support a comprehensive POC process in place with nurses screening patients for surgical readiness. The work complements and solidifies the education efforts, addressing patient centered care and standardization. Article reviews addressed the value in developing a platform to gather detailed, structured/standardize pre-op care. This includes integration of Information Technology (IT) to increase patient engagement and compliance with standardized patient instructions.

The implementation of Lewin's Change Theory Model has supported the integration of the new agreed flowchart for the POC nurses to adopt and adhere to for the preoperative screening process. An integrated patient care plan to identify and address reasons for a surgery cancellation and ensure optimal support from the multidisciplinary team has improved the delivery of surgical care more effectively. The development of a staff education project to decrease variations in surgical optimization has improved quality pre-op workups and patient optimization. Understanding what the variations in the POC process and surgical optimization requires knowing what the causes are and whether the process intended to decrease the variations in surgical optimizations does reduce them. The multidisciplinary approach with adequate patient preparation, timely communication between patients and their multidisciplinary team are integral to timely patient optimization.

In the following section, I will describe the methods I used to evaluate the practice-focused question of whether the education project increased staff knowledge to decrease variations in surgical optimization. The sources of evidence will be discussed, and the results collected to complete this project including how the evidence was analyzed.

Section 3: Collection and Analysis of Evidence

The problem this project addresses is the variation in patient surgical optimization. The variations in practice have been identified for the surgical patient workups requiring nursing staff to coordinate with other key disciplines and departments for surgical optimization. Inefficient surgical preparation processes have been identified as a practice gap for the hospital setting where this doctoral project is taking place. The lack of consistency across the integrated system has impacted the ability to provide standardized care, evidence-based surgical screening evaluations, and patient optimization in a timely and coordinated manner prior to the planned surgery date. Efficient surgical preparation processes are pivotal for providing safe surgeries (AORN, 2021) and the POC nurses are instrumental in-patient teaching to promote compliance and improved overall health to support patient surgical readiness.

Practice-Focused Question

The purpose of this staff education project was to teach the POC nurses about the new standardized workflows and flowchart to close the practice gap in coordinating surgical patient preparation in collaboration with the surgeons, POM providers, anesthesia providers, and other key stakeholders involved in the patients' care. The variations in practice for surgical patient workups require nursing staff to coordinate with other key disciplines and departments for surgical optimization. The practice focused question addressed in the project was "Will an in-person staff education project improve staff knowledge of the surgical optimization flowchart and how to use it?" The goal was to achieve a reduction in the variation in the workflow of the POC nurses and improve

communication between the POC nurses and the multidisciplinary team. The practice-focused question aligns with the purpose of this project by assessing the POC nurses' newly gained knowledge of their standardized work and how to use the flowchart to eliminate redundancy and improve communication across the organization with the multidisciplinary team involved to achieve timely surgical optimization for the patients by the planned surgery date.

Sources of Evidence

Two sources of data were used in this project. One data source to be used in this was a literature review conducted using the Walden Library and the onsite Medical Library at the organization to access the Cochrane Database, CINAHL, and PubMed. The key search terms included *preoperative assessments*; *patient, surgical,* and *nurse screening*; *optimization*; *communication*; and *day of surgery cancellation*. The search criteria were set to include English only references for the years between 2015 and 2022. The evidence search criteria included randomized controlled trials, systematic reviews, and quasi-experimental studies. The second source of evidence is the pretest and posttest data collected from the nurses before and after their education to determine if there has been an increase in knowledge about the new process flowcharts.

The body of evidence from the literature search focused on a practice change in the development of a redesign of the current model of preoperative education for patients needing surgery and the integration of POC nurses with a pivotal role in the daily work of coordinating patient care and collaborating with the multidisciplinary team to promote patient surgical optimization. Nurses need to have a voice and take an active role in

advancing patient care through applying nursing EBP in the clinical setting. The global pandemic impacted how elective surgeries would resume and created a backlog of over 800 postponed surgical cases. The Harvard Business Review noted the need to address the impact of the COVID-19 pandemic on patient processes (Martin, 2020).

Archival and Operational Data

The organization captures operational data daily on surgical cancellation reasons that are broken down into specific categories from 5 days before surgery to the same day as the scheduled surgery. The reasons captured in this data bank are the following, which all lead to a same day cancellation: patient decided they no longer wanted surgery, patient experienced a change in health status, patient was a no show on the day of surgery, workups were incomplete, and the patient was not optimized. As we examined our data, the same day cancellation rate was higher than the national benchmark of 5% or less. Our cancellation rate is currently as high as 25%. The daily reporting of our same day surgery cancellation strongly supports the relevance of the doctoral project purpose for the need to reduce variations in surgical optimization.

Procedures

The education was presented to the five POC nurses in person. This implementation required two educational sessions because of the nurses' differing work schedules. The training was scheduled and coordinated to not be disruptive to their daily work. A calendar invitation was sent out to each of the POC nurses for them to confirm. The education was delivered in mandatory training to promote nursing practice standardization. Prior to the training, a pretest was administered to establish a baseline of

knowledge. The pretest and posttest data has remained de-identified and anonymous. I maintained all data securely. Each test was assigned a number, which was assigned to the participant. The participant entered the same number on both tests so that pretest and posttest data can be matched by participant. However, the tests were voluntary for the POC nurses. The results are not accessible to the administration so as not to impute any punitive action. To measure effectiveness of the education, there was an analysis of the mean percent knowledge gain in the comparison of the pretest to the post test results. The agreements with the key stakeholders and the POC nurse compliance to the new workflow has been reflected in the increased staff knowledge from the staff education project to decrease variations in the surgical optimization by comparing the pretest and post-test results. The expectation was that a significant improvement in the POC nurses' knowledge by improved posttest scores. A bar graph has been used to portray the outcomes (see Appendix D).

Ethical Protections

There were no foreseeable ethical issues with this project as it focuses on delivery of education to staff nurses. The project followed the Walden University Manual for Staff Education. The project also received approval from the Walden University Institutional Review Board (IRB) to assure the confidentiality of the interdisciplinary team to safeguard human subjects (approval no. 07-31-23-0186207). I also received approval from the Research Determination Board at the facility for permission to conduct the project. The facility found the project to be exempt from full review. The nurses provided informed consent with attending the staff education program. The pretest and posttest

have remained de-identified and anonymous. These tests were voluntary, and the results will remain protected from administration.

Analysis and Synthesis

National attention on surgical safety has led to data collection aimed at informing safety, quality, service, and care delivery initiatives that can reduce same day patient cancellations (ASC, 2020). A review of the selected articles showed system themes that are predictive indicators that support the redesign education of the POC staff to reduce variations in surgical optimization through improved communication, education, and collaboration with the multidisciplinary team. These articles support clearly defined roles with a comprehensive POC process in place with nurses screening patients for surgical readiness. The work complements and solidifies the education efforts by substantiating the need for patient-centered care and standardization. Article reviews addressed the value in developing a platform to gather detailed, structured/standardize pre-op care. The Creation of this platform will need integration of information technology (IT) to support increased patient engagement and compliance with standardized patient instructions.

Furthermore, the literature review provided strong supporting evidence focused on the creation and use of safety checklists to reduce surgical risk. The surgical checklists need to be useful in transitioning patients from pre-surgery to the day of surgery and the multidisciplinary team must agree on and adhere to the preoperative screening process (CAHPS, 2020). Run charts and graphs are used to show a visual trend in the pretest and post-test survey responses after staff education provided to reduce variations in the surgical optimization (see Appendix D). Microsoft Excel was used for analysis and

graphing data outcomes using simple percentages, which were calculated and measured in terms of standard deviation from the mean.

Summary

This section focused on describing how the practice-focused question and purpose of this doctoral project align with the data collection and analysis to be conducted. I receive daily generated reports on same day surgery cancellation and reason. This data has provided a glimpse of insight into our variations in surgical optimization that is compiled quarterly by the senior systems administrator. The articles selected for the literature review focused on themes affecting care delivery systems that are fragmented, costly, inefficient, and lacking in patient-centered care and resulting in low patient satisfaction. The literature addresses the financial losses due to the waste of same day surgery cancellation and system inefficiencies.

The implementation of Lewin's change theory supported the integration of the newly agreed upon flowchart for the POC nurses to adopt and adhere to for the preoperative screening process. An integrated patient care plan to identify and address reasons for variations in surgical optimization and ensure optimal support from the multidisciplinary team will improve the delivery of surgical care. The development of the staff education project to decrease variations in surgical optimization requires knowing the causes of the variations and whether the process intended to reduce the variations in surgical optimization does reduce them. The multidisciplinary approach with adequate patient preparation and timely communication between patients and their multidisciplinary team are integral to timely patient optimization.

In the following section, I describe the findings related to the practice-focused question “Will an in-person staff education program improve staff knowledge of the surgical optimization flowchart and how to use it?” The development of standardized work for the POC nurses and flowchart has provided the guidance needed to decrease variations in surgical optimization. The strengths and limitations of the project and recommendations for future research are also discussed.

Section 4: Findings and Recommendations

This project's aim was to provide staff education to reduce variations in surgical optimization and the same day surgical cancellation rate. A current practice gap was identified in the process for surgical patient workups requiring staff to coordinate with other key disciplines and departments for surgical optimization. The practice focused question addressed by the project was "Will the staff educational program increase knowledge about the new flowchart, leading to a reduction in workflow variation across POC nurses and improve communication between the POC nurses and the multidisciplinary team to reduce same day surgical cancellations?" The purpose of this staff education project was to teach the POC nurses about the new standardized flowchart for use in coordinating surgical patient preparation in collaboration with the surgeons, perioperative medicine providers, anesthetists, and other key providers involved in the patients' care.

Using CINAHL COMPLETE, Cochrane Database, Ovid, PubMed, and Medline databases, peer-reviewed and recent publications between 2015 and 2022 yielded 1,667 articles. Of these articles, 20 abstracts were reviewed to identify the articles pertinent to the practice-focused question. The articles selected for the literature review focused on themes affecting care delivery systems, which are fragmentation, high cost, inefficiency, poor communication, and lack of nursing patient advocacy. The literature supported the use of staff education to improve patient care through application of evidence and increased knowledge to ensure uniformity in practice. Additionally, the organization-generated daily data regarding surgical cancellations provided some insight into the POC

nurses' role in discovering many patients who had not completed the diagnostics necessary for surgery, forcing last-minute cancellations. The patients who experienced a same day cancellation reported that it was stressful and inconvenient, created a rescheduling burden, and resulted from poor communication to the patient/family member. Patients became dissatisfied, irritable, and worried about the delay in their care, which contributed to an overall poor patient care experience. These patient experiences were reflected in the patient satisfaction survey responses related to nursing indicators, in which nurses play a pivotal role in advocating for improved patient care quality.

The second source of evidence was the results of the POC pretest and posttest surveys completed by the five participating POC nurses. The goal of the pretest survey was to identify what variations were occurring when doing COVID-19 surveillance screening, chart review, and providing POC instructions over the phone. Three objectives were written to guide this work (see Appendix A). A small core group of five POC nurses took the 10-question pretest survey (see Appendix B). Education was delivered that addressed the gaps and the new standardized process of patient optimization (see Appendix C). The pretest and posttest answers were compared, and a Pareto chart was used to report the differences (see Appendix D).

Findings and Implications

The evidence supported nursing advocacy for patient surgical readiness. Consistent communication across the multidisciplinary team was crucial to standardize care by developing staff education and implementing evidence-based practice guidelines to drive best outcomes. Baseline knowledge of the POC nurses was obtained by

administering the POC pretest survey. The mean score on the pretest survey was 76%. Of the five POC nurses who took the pretest survey, four of them scored 70% and one scored 100%. The areas of variation in their practice based on their responses were different approaches to whom they would contact if the patients were not optimized. Sometimes the surgeon, POM provider, or anesthetist was contacted. Then, there were different opinions from the surgeon, POM provider, and anesthetist as to whether to cancel the case or to proceed. The responses from the POC nurses were influenced by the relationships with providers and their years of practice as a nurse. The survey provided information about the inconsistencies in adhering to the agreed upon guidelines. The third finding was the variation in time frames for a patient to be worked up for surgery. The variations in workups could be less than 24 hours, to 72 hours, and up to 2 weeks.

The Pareto Chart (see Appendix D) identifies three areas of variations in practice: process, communication, and standard of care. The breakdown of questions from the pretest and posttest survey were categorized into those three areas. The breakdown of the 10-question survey had two questions about process, five questions focused on communication, and three questions about standard of care. Overall, the breakdown of missed questions shows 80% of the questions missed fell into the two categories of communication and standard of practice. The pretest survey questions identify the gaps in the POC process. These results were important to guide the redesign of the POC process and partner with the multiple health care disciplines involved with this process to collaborate and align this work for the benefit of the patient by improving patient surgical optimization.

The survey responses by the POC nurses provided insight to additional workflow practices the POC nurses had developed and not standardized. This knowledge was discovered when reviewing the PowerPoint education with the POC nurses. One example was a patient needing cardiac clearance for a scheduled surgery date 9 days out. The cardiology department was booked for 5 weeks with no availability for a pending surgical patient. The POC nurses started calling the Cardiology Department to get assistance in getting the patient scheduled for a Cardiac Nuclear Medicine Test before their surgery date. Often an appointment was not possible, and the patient's surgery was cancelled the day before or on the scheduled day of the surgery due to an incomplete cardiac clearance. These identified gaps in preparing a patient for surgery reinforced the importance of standardization and collective collaboration with key stakeholders and staff involved with preparing a patient for elective surgery.

After the PowerPoint education presentation was provided, the five POC nurses were given the posttest survey (see Appendix B). There was an improvement in the overall mean score from 76% to 94%. Two of the five nurses scored 100% and the remaining three nurses each scored 90%. There was no commonality in the questions that were missed. The three questions missed were Questions 5, 8, and 9. Question 5 asked about standard of care and questions number eight and nine asked about communication with the multidisciplinary team. This result signifies that some variations are still occurring in practice by the nurses influenced by key stakeholders who they communicate with regarding patient optimization regarding timelines for surgical workups. One team member not included in the PowerPoint presentation was from the

sterile processing department (SPD). This department has a significant impact on patient surgical readiness regarding specialty implants, instrumentation, and trays. Even though only one nurse missed this question, it was not formally covered in the education (see Appendix C). This was knowledge known to the other POC nurses based on their experience.

The one area where the four nurses continued to have different responses was regarding the guideline practice for COVID-19 surveillance screening of surgical patients. The practice guideline was changed to discontinue the COVID-19 screening; this change went into effect on August 21. Then, the decision was made by the region of the organization to pause making the change due to the increasing number of COVID-19 cases in the community just 1 week later. The POC nurses will continue to ask the Covid-19 screening questions, and PCR testing will be required for all surgical patient admissions. The test question did not reflect the current practice. Guidelines are influenced by the CDC, the local Public Health Department, community practice, and local and regional organizational guidelines in COVID-19 surveillance screening for surgical patients. The specific screening criteria have continued to change over the last 3 years, which requires continuous evaluation of the POC screening process to ensure the program stays in alignment with EBP guidelines to ensure patient surgical readiness and optimization to prevent complications for patients who test positive for the COVID-19 virus.

One unanticipated outcome was the impact of the perioperative managers on the local infection prevention team. The perioperative managers recommended how to

implement the new practice guidelines and prevent COVID-19 exposure to other patients with the removal of surveillance screening for non-symptomatic patients. The recommendation was to test all planned surgical patients since it is unknown if they will be in a private room or will share their room with another patient. This plan was accepted and will be communicated to the regional team. The POC nurses will continue to ask specific questions regarding COVID-19 symptoms or recent exposure. They will monitor high risk exposures, symptoms, and escalate as appropriate. Nursing representation was essential in the redesign and developing of patient care programs. As health care continues to navigate the COVID-19, surveillance testing provided a prime example that nursing professionals are an important group in patient advocacy for clinical practice and the development or redesigning of the delivery of patient care.

Potential Positive Social Change

This project created equitable access to surgical care through developing standardization of practice for the patients requiring perioperative services. All patients receive the same support despite their circumstances and care is customized to achieve medical optimization based on each person's health care needs. The professional nursing practice model in the organization and the focus on inter-professional collaboration for improving patient care and population health outcomes reflects the orientation toward patient-centered care. Having a multidisciplinary team approach with an agreement to standardize the workups will improve the patient care experience for surgical readiness.

Recommendations

One of the proposed recommendations to close the gap in the practice was

developing an education program for staff who are doing the work of POCs so there is a standardization in the workflows and agreements with the providers about what is expected of the POC nurses. Communication of the POC nurse's role was communicated to the multidisciplinary team through developing a PowerPoint presentation describing the three roles of the POC nurse and using a flowchart to provide guidance, consistency, and continuity in the POC process (see Appendix C).

Contribution of the Doctoral Project Team

The doctoral project team has been supportive in standardizing staff education roles for the POC nurses. There has been tremendous support from the perioperative director, finance director, chief of anesthesia, POM provider, and the physician OR director to move forward with the education and working agreements with the multidisciplinary team so there will be continuity in the patients' care and to decrease variations in surgical optimization. An appropriate time has been allowed to provide the education, work with the staff on standardization of work, coordinate with the senior systems administrator to look at current data, and hold meetings with various persons of the multidisciplinary team to coordinate this work, gain feedback, and to discuss the valuable improvement to be gained in delivering patient care for the surgical patient.

Nurses need to be involved with organizational goals so that there is an alignment with strategic nursing projects. When aligned with the nursing strategic plan, the resources needed for projects to support practice change can be made available through nursing leadership. There are plans to extend this project beyond the DNP doctoral project with a fellow student working on her Master of Business Administration (MBA)

to look at the OR productivity impact of increased surgery cancellations due to patients not being optimized for surgery by their planned surgery date.

Strengths and Limitations of the Project

One of the greatest strengths of this project was the frontline staff advocacy for surgical patient care and commitment to ensure patients are properly prepared and optimized for their surgery. The other strength of this project is our PORD who is compassionate about the delivery of patient care and sees the opportunity to improve the POC process. The most recent strength is our regional perioperative team has recognized the need to improve the POC process, so it is standardized between the different entities and facilities.

One of the greatest limitations of this project was the work of optimizing a surgical patient involving multiple disciplines from different entities of the organization. There had not been a collaboration between the entities to standardize our work, have set agreements on timelines, and have a shared mental model of each care provider's role in the care of the surgical patient being optimized for surgery. Another limitation of this project was the guidelines around COVID-19 surveillance for a surgical patient, which has been in a constant state of change. There are adherent risks of a patient having COVID-19 and undergoing surgery. This continues to be a concern for nursing in their daily work in preparing a patient surgery.

Section 5: Dissemination Plan

Building a standardized process for the POC nurses will support the integration of the work and role the designated POC nurses play in preparing patients for their planned surgery date by confirming the patient has been deemed optimized to safely proceed with surgery. A primary method of disseminating and integrating the new knowledge to the POC nurses was through the Power Point education presentation and creating a POC flowchart. The knowledge gained through this project is supported by the key stakeholders who have a shared goal to reduce the variations in the practice of surgical optimization. The project success hinged on engaging the right stakeholders, being clear about the project objective, and communicating what I intended to achieve. The ongoing communication and dissemination of information about and resulting from the project has positively influenced the integration of this work in the pre-op call setting. The primary audiences were the POC nurses, and the multidisciplinary team involved in the optimizing of patients for surgery. As a nursing scholar, I am committed to lifelong learning that will keep nursing at the forefront as we take an active role in collaboration with team members to integrate current research evidence into practice and bring to fruition improvement of the delivery of care and health care outcomes for the patients and the communities that we serve.

Analysis of Self

As the nursing scholar leading this work of developing staff education to reduce variations in surgical optimization, the experience in a supportive environment with a positive culture geared toward EBP has allowed me to learn and engage in leadership

skills. When planning and enacting change inside a practice, collaboration is an essential approach for success. Ongoing communication was key as my project has impacted change that required systems thinking and multidisciplinary partnerships. The development of the POC staff education and incorporating the use of a flowchart has helped improve patient surgical readiness, which is driven by standardized education, clinical knowledge, and agreements on timelines and guidelines with other key stakeholders in preparing the patient for surgery. This project work has been presented to the PORD, director of finance, chief nursing executive, POM director, fellow student, and the perioperative director. There was a consensus that this project will provide improved patient care experiences and alter quality and safety practices. As there is now an increased attention around reducing variations in surgical optimization by the POC nurse, a focus on productivity, waste, surgery cancellations, patient satisfaction, and quality outcomes has emerged. There has been a significant revenue loss with surgery cancellations that are projected to be millions of dollars annually.

This project showed me the value of collaboration with multiple health disciplines and was an important aspect of developing leadership competency. As a nurse scholar, one of my long-term professional goals will be to continue to evaluate the financial implications of disseminating new EBP changes and the value it brings to patients and staff doing the work. In completing this project, some of the greater challenges were working with other entities in the organization who have never engaged with our department nor understood the work we do in parallel with them. It was important to align our work to provide consistent, concise, and clear communication to patients. It was

imperative to develop a formalized education program for the POC nurses and establish a standardized process for redesigning the POC program to deliver coordinated patient care. The success of the project also required support from the upper leadership team and the departments affected by the project. An important aspect to the implementation and dissemination of a proposed practice change was engaging the key players who can facilitate the change. I had to make sure I was included in all the appropriate venues to speak about the work I was doing and the common goal we all have to advocate for patients.

This has been a long journey of dedicated work, trying to navigate political beliefs, fiscal responsibility, and most importantly how to keep this work moving forward for continuous improvement in surgical patient optimization. It is clear this program needs an ongoing review and evaluation of the work being done to reduce the variations in surgical optimization. We have seen a constant change just in the COVID-19 surveillance screening, which reinforces ongoing evaluation of the program to ensure we are providing the most advanced EBP for optimal patient outcomes in the surgical setting. I have witnessed the influence of leadership in decision making and its importance when it comes to the application of an EBP; the organization leaders manage, direct and collaborates with stakeholders to effect a change necessary to improve practice. This has been an incredible insight as a new leader and one that brings added value to my personal professional practice as I move forward in my nursing career to influence the delivery of patient care.

Summary

In summary, this doctoral project demonstrated promising outcomes in providing staff education to decrease variations in surgical optimization. The baseline knowledge of the POC process for the five nurses demonstrated a mean score improvement from 76% to 94% based on the pretest and post-test results. Disseminating a formal Power Point presentation to standardize the workflow of the POC process resulted in a gain of knowledge related to how to navigate the process, establish a standard of care, and to whom to escalate patient care concerns or issues. Building a standardized process for the POC nurses and integrating the multiple disciplines in surgical preparation helped streamline care so it is coordinated and seamless in achieving the goal of reducing variations in surgical optimization.

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Appendix A: Staff Education Project Objectives

1. The POC registered nurse will be able to verbalize the new standardized workflow for confirming the patient is optimized to proceed with their scheduled surgery upon the completion of receiving the in-person staff education.
2. The POC registered nurse will have a defined workflow to coordinate patient care needs with the multidisciplinary team members as they have primary contacts to have a direct line of communication to report any patient concerns or issues.
3. The POC nurse can verbalize the importance of adherence to a standardized flowchart for guiding timely surgical patient readiness, reducing the organization's same-day surgery cancellation rate.

Appendix B: Pre-Operative Call Questionnaire Pretest and Posttest Survey

1. What important step (s) are required in the preparation and verification of doing a pre-op call?

a) Verify surgery schedule is set and review next day charts

b) Confirm the patient has completed their pre-op work-up & are optimized according to the provider

c) Confirm the patient has completed a Covid-19 surveillance screening test with a posted negative result for planned admissions

d) All of the above

2. What documentation is POC registered nurse verifying in the patient's chart to determine the patient has been deemed surgically optimized?

a) Review lab values and ancillary test confirming any abnormalities have been reported to the provider and there are no other pending workups

b) POM Provider note verifies the patient is optimized and cleared form surgery

c) Confirm patient is active on the patient portal for instructions

d) Call the patient to review results and provide them their pre-op instructions

3. Who does the POC nurse contact when they have identified a patient with an incomplete workup or abnormal labs not addressed?

a) The Surgeon, POM Provider, & Anesthesia

b) POM Provider

c) Anesthesia

d) NP or POM Liaison

4. Where is the Standard of Care Work-up Guidelines located in the Electronic Health Record (EHR) for verifying the standard of practice for a surgical patient workup?

a) Electronic Health Record under Anesthesia Home Department

b) POM website

c) Perioperative Website

d) None of the above

5. What is the desired time frame to have a surgical patient workup completed before surgery to prevent a same day cancellation?

a) Seven days

b) Three days

c) Fourteen days

d) Two days

6. What are the steps to communicate, coordinate, and collaborate patient care issues/concerns to prevent a same day surgery cancellation.

a) Send a team communication out to the Surgeon, POM, Anesthesia, & NP regarding the issue or concern that has been discovered in the chart review

b) Place a nursing note in the patient's chart regarding the concern

c) Call the Physician Operating Room Director

d) Call the POM Liaison

7. How does the surgical patient's special needs get met on the day of surgery?

a) Check special needs during the POC when providing patient information and/or when the Surgeon notifies the POC nurse regarding specific needs for a patient.

b) Surgeon notifies the POC nurse about the patient's special needs.

c) Anesthesia notifies the POC nurse about the patient's special needs.

d) Once the patients' special needs have been identified by any member of the team the POC nurse will communicate to the entire team and leadership what those needs are so the patient receives patient centered care on the day of surgery.

8. Who consists of the Perioperative team and multidisciplinary team when coordinating patient care needs prior to surgery?

a) Surgery Clinic, Surgeon, Anesthesia, POC nurse, POM Provider/POM NP, Specialty Providers, Utilization Management, Physical Therapy, and a Medical Social Worker

b) Perioperative Services and Sterile Processing Department

c) Surgery Leads and Ancillary Departments

d) All of the above

9. The POM Liaison is contacted for patient concern escalation for incomplete workups to determine the next steps for the patient to proceed with their scheduled surgery date?

a) True

b) False

10. Who do you call when a patient is identified not optimized for surgery and the surgery needs to be postponed or canceled?

a) Surgeon

b) Anesthesia

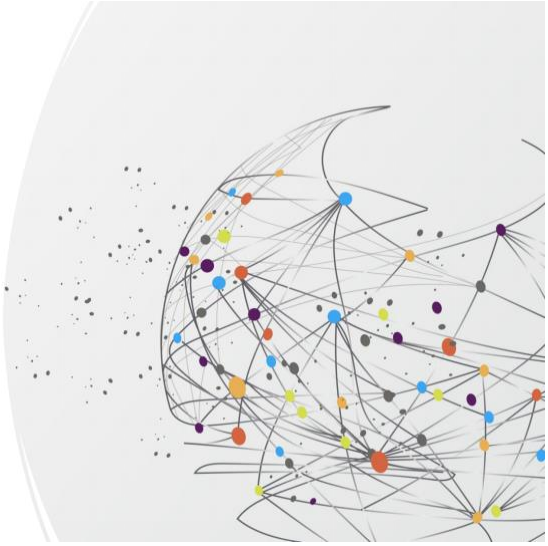
c) POM Provider, Surgeon, and Anesthesia

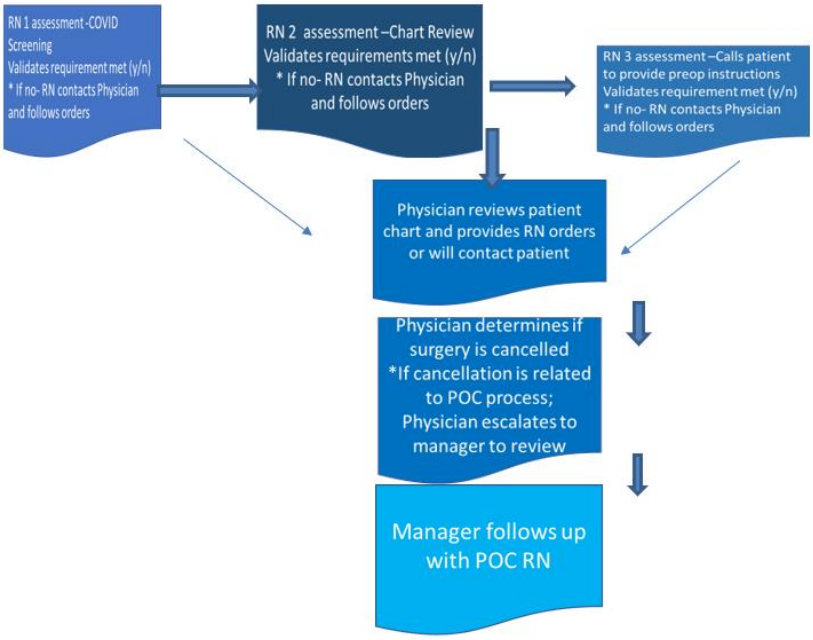
d) Anesthesia Liaison

Appendix C: Staff Education

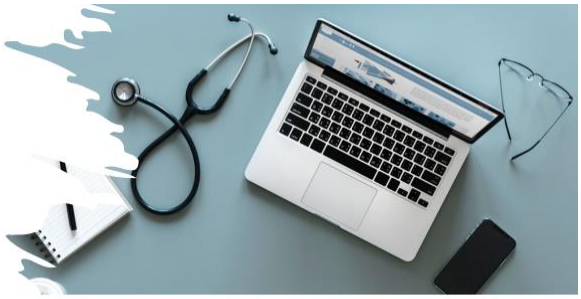
POC RN Staff Education to Improve Surgical Optimization Utilizing a Flow Chart

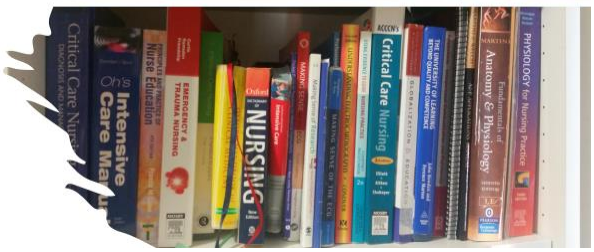
Shelly Bressoud
DNP Proposal
June 2023



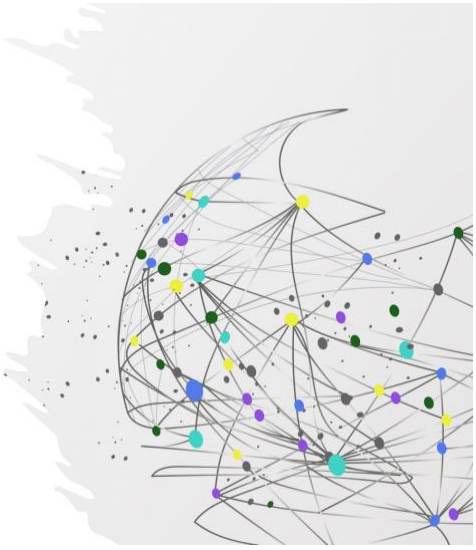


Standardized Workflow for the POC RN to Coordinate Surgical Patients' Care with the Multi-disciplinary Team





The multidisciplinary team supporting the workflow of surgical patient optimization consists of:
POC RNs, Surgeon, Anesthesia, POM Provider POM Liaison, Social Worker, Utilization Management (UM), and Physical Therapy (PT)



Three POC RN Job Duty Roles

- 1. POC RN Covid-19 surveillance screening questions for all surgical patients and testing for all planned admissions
- 2. POC RN performs chart reviews on all patients who are scheduled for an elective surgery 1 week prior to surgery
- 3. POC RN is responsible for contacting the patient 1-2 days before their surgery to provide specific instructions regarding NPO status, arrival time, Chlorahexadine gluconte (CHG) wipes, and any other specific instructions for the patient

RN 1: Covid-19 Screening Surveillance and Testing

All surgical patients will be screened for Covid-19 symptoms and recent known exposures

All surgical patients requiring hospitalization after surgery must receive surveillance screening PCR test day of surgery through the pop department

Covid-19 test results must be within 96 hours of the patient surgery date

Covid-19 test is valid for 7 days before patient is required to re-test before their surgery

Patients who have had Covid-19 will not be re-tested

RN 2: Patient Chart Review to Confirm Patient is Optimized for the Scheduled Surgery Date

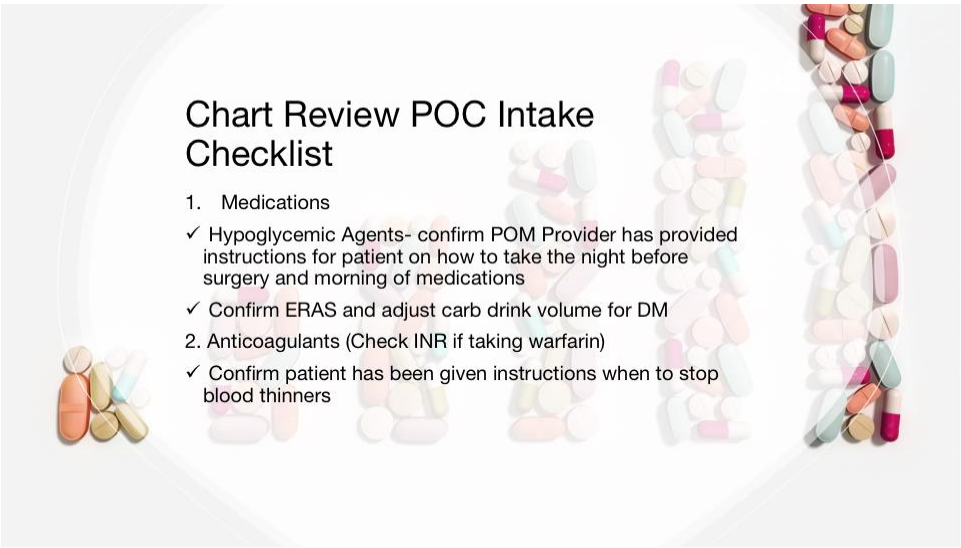
Standardized Workflow for RN Chart Review

- POC RN Team Communication is done through the following modalities:
  - 1. Health Connect
  - 2. Outlook Email
  - 3. Teams Chat.
  - 4. Phone calls
  - 5. Pager system for the Surgeons
- Chart Review starts 1 week before the patient's surgery date
- First step is to review the chart for patient readiness via procedure pass
- Checklist must be reviewed for completion and possible fallouts

Procedure pass tracks the status of each task on the checklist and integrates fully with ordering and results, appoints, and notes as it happens so the multidisciplinary team can monitor what needs to be completed before the patient's surgery.

Examples of fallout's: incomplete labs, incomplete cardiac clearance, bacteria in the urine culture not treated with antibiotics, incomplete ancillary testing such as magnetic resonance imaging (MRI), computerized tomography (CT), X-rays, or the

provider did not place the orders in the chart for the patient and the patient was unaware they needed labs before surgery.



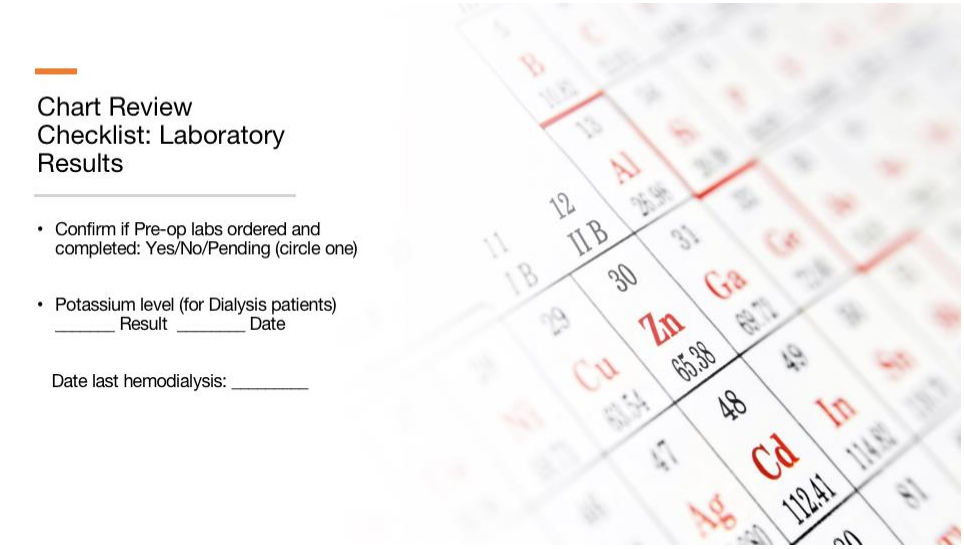
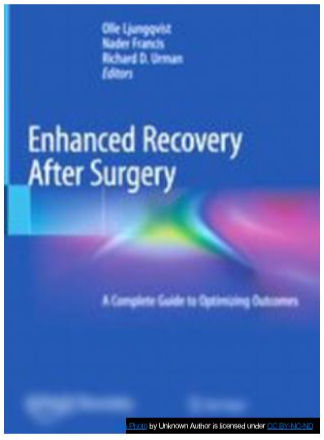


Chart Review POC Intake Checklist: Cardiac Workups

✓ EKG Completed:
Yes/No/NA/Comment:

✓ Cardiac Stress Test:
Yes/No/NA/Comment:

✓ Cardiac Clearance Received
Yes/No/NA/Comment:



POC Intake Checklist: ERAS Kit

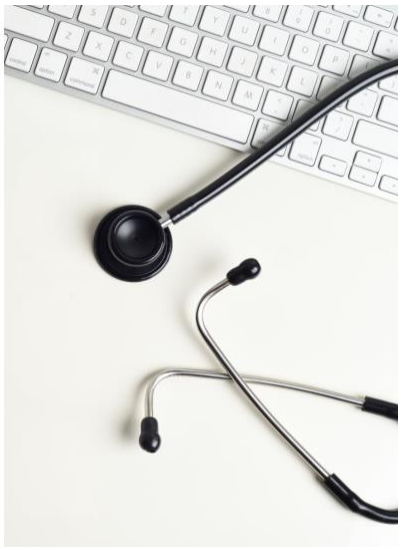
- CHG Wipes
- Carb Drink
- Confirm kit given to the patient (either in surgery clinic or sent via mail)

POC Intake Checklist: Covid-19 Surveillance Testing for Planned Surgical Patient Admissions

- Covid test: Positive/Negative/Retest (circle one)
- Date of testing: _____
- If patient has had recent Covid-19 they are not retested for 90 days from their last exposure. Date of positive last test: _____
- Results to Surgeon and/or Anesthesiologist for clearance

POC Chart Review Continues

- If the patient's work-up is incomplete; OR Scheduler, POM Provider, Surgeon, and Anesthesia will be notified
- Review notes against the order, example: missing orders, abnormal labs, referral
- Notify Physician if the planned lab tests and/or work-up written in the H & P are not ordered
- Contact Physician for abnormal laboratory and test results and to update H & P, example: UA positive results and if antibiotic (AB) is necessary
- Once AB or additional medication is ordered, contact patient to confirm they have picked up new medication and started taking it as prescribed



POC Chart Review: Cardiac Work-up

- Review H & P to verify that surgical plan correlates with order
- If cardiac test is not completed, contact cardiology personnel and attempt to facilitate test in a timely manner to meet the scheduled surgery date. Example: Nuclear Med Scan ordered by POM Provider, but was not scheduled prior to surgery date

POC RN Chart Review: Anesthesia Referral

- Patients who are high risk for anesthesia based on comorbidity (HTN, DM, and high BMI as well as Cardiac, Symptomatic Covid, and Neurologic conditions) would need further review and additional time for appropriate workups
- Work-ups need to be done 5-7 days before scheduled surgery
- Standard of Care Pre-op Work-up Guidelines are located in the EMR under Anesthesia Department

POC RN Chart Review: Collaborate with POC RN

Email communication to perioperative team as needed to communicate schedule changes and patient special needs

Example: Autistic pediatric patient, patients with home caregiver needs, interpreter needed for patient's primary language if not English, etc.

RN 3: POC Instructions to the Patient 1-2 days Before Surgery

- First step is to prioritize calls and collaborate with Chart Review RN to confirm patient optimization for first cases. All of the following is required:

✓ Verify surgery schedule is set and review next day charts

✓ Confirm the patient has completed their pre-op work-up & have no abnormal results

✓ Confirm the patient has completed a Covid-19 surveillance screening test for planned admission with a posted negative result. Positive test requires escalation to provider and anesthesia

RN 3 Con't: POC Coordination and Patient Optimization

- All patients must arrive 2-hours prior to scheduled procedure
- In some cases, patients may arrive 3-hours early per physician's preference, with the first case to arrive at 0600. Special circumstance example: Nerve Block to be completed in pre-op
- Do intake assessment over the phone. Review POC Intake Checklist
- In the event of "add-ons", ensure preop labs and EKG are ordered and results are cleared by the Surgeon or Anesthesiologist

RN 3 Con't: Patient Optimization and Avoiding Delay

- POC RN to collaborate with Chart Review RN
- In cases, when the surgery is scheduled the day prior to surgery, ensure clearance is obtained from the POM Provider
- For any patient concerns regarding surgery, contact POM Provider, Surgeon, Anesthesia Supervisor, or POM Liaison

RN 3 Con't: Team Communication and Collaboration

- Send out a team communication to the surgeon, POM Provider, & Anesthesia regarding issue or concern that has been discovered in the chart review to prevent a same day surgery cancellation
- Communicate add-ons to the PACU Charge Nurse in case of after hours schedule
- Use Team Chat for discussion about patient issues or concern with the POM, Surgeon, Anesthesiologist and make adjustment to the schedule as needed
- Share any diagnostic and lab tests to be done DOS with pre-op team
- Monitor voicemail messages on ext: 4148 throughout the day & return patient calls

RN 3 Con't: Team Communication and Collaboration

- Send email communication out for any special circumstances and accommodations on the schedule at the end of the day
- Include an email communication regarding POM appointments on the weekend for follow-up and clearance

References

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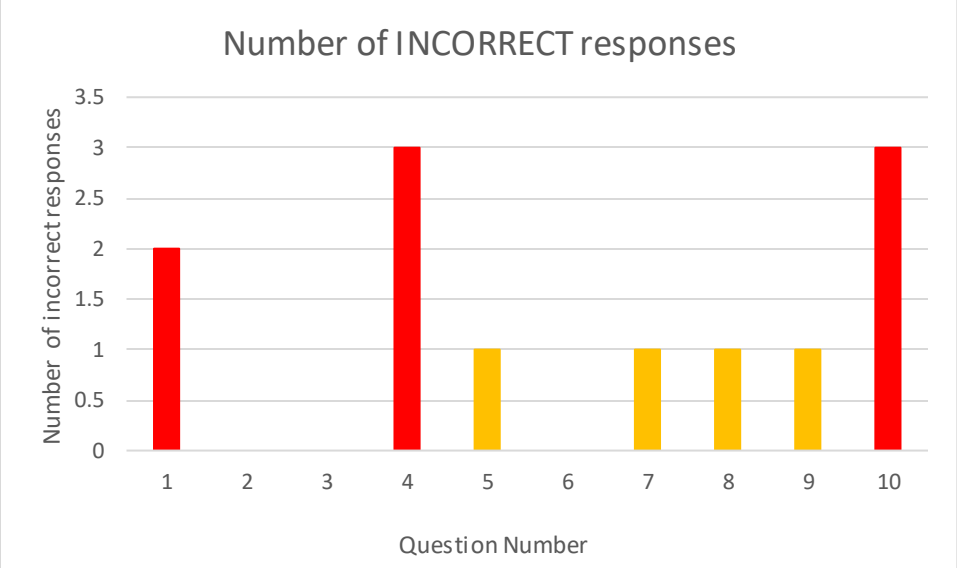
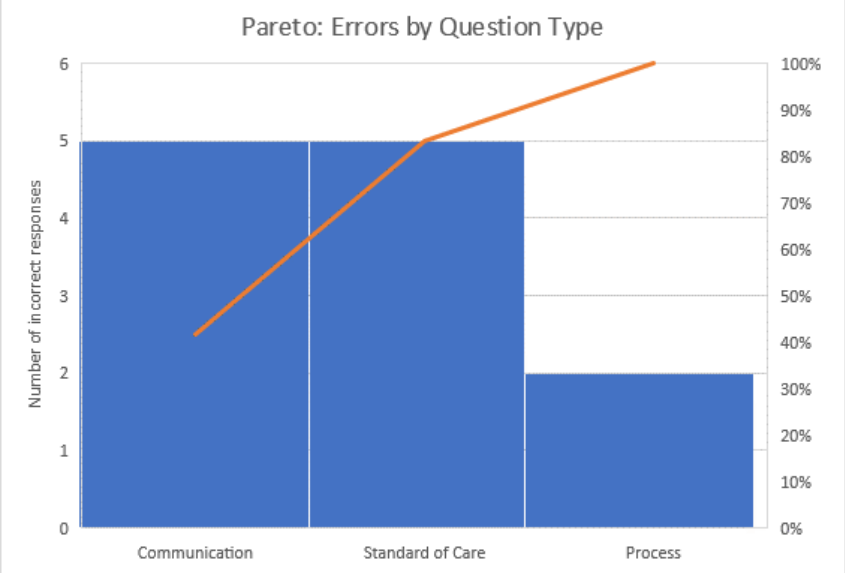
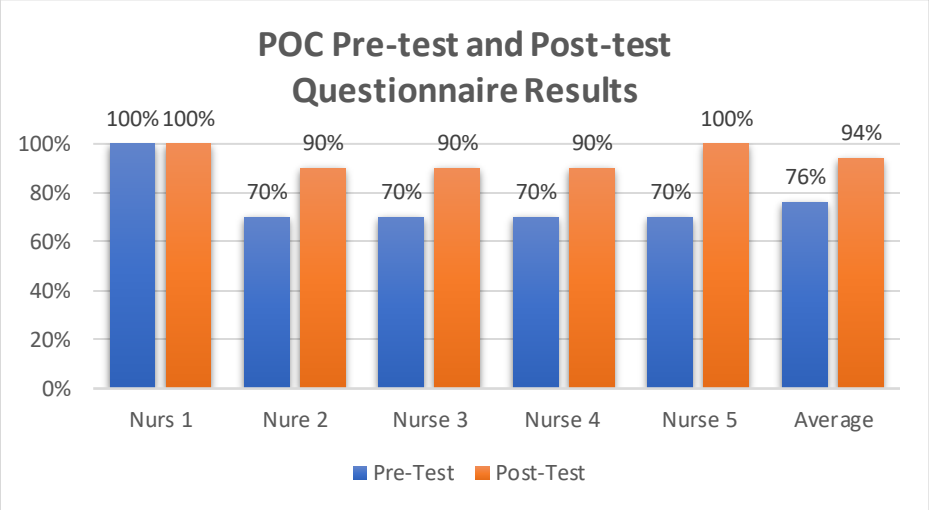
Appendix D: Pareto Chart of Survey Pretest Results

Question Number	Question - Full Text	Question type	Number of INCORRECT responses	% of nurses who answered INCORRECTLY
1	What important step(s) are required in the preparation and verification of doing a pre-op call?	Process	2	40%
2	What documentation is POC RN verifying in the patient's chart to determine the patient has been deemed surgically optimized?	Process	0	0%
3	**Who** does the POC RN contact when they have identified da patient has an incomplete work-up or abnl labs that have not been addressed?	Communication	0	0%
4	Where is the Standard of Care work-up guidelines located in the electronic health record for verifying the standard of practice for a surgical patient workup?	Standard of Care	3	60%
5	What is the desired time frame to have a surgical patient workup completed before surgery to prevent a same day cancellation?	Standard of Care	1	20%
6	What are the steps to communicate, coordinate and collaborate patient care issues/concerns to prevent a same day surgery cancellation?	Communication	0	0%
7	How does the surgical patients' special needs get met on the day of surgery?	Standard of Care	1	20%
8	**Who** consists of the Perioperative team and multidisciplinary team when coordinating patient care needs prior to surgery?	Communication	1	20%
9	The POM liaison is contacted for patient concern escalation for incomplete workups to determine the next steps for the patient to proceed with their scheduled surgery date. (T/F)	Communication	1	20%
10	**Who** do you call when a patient is identified not optimized for surgery and the surgery needs to be posponed or canceled?	Communication	3	60%




Pareto: Errors by Question Type
Number of incorrect responses
0
1
2
3
4
5
6
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Communication
Standard of Care
Process


POC Pre-test and Post-test Questionnaire Results
100%
80%
60%
40%
20%
0%
100% 100%
70%
90%
70%
90%
70%
90%
70%
100%
76%
94%
Nurs 1
Nure 2
Nurse 3
Nurse 4
Nurse 5
Average
Pre-Test
Post-Test