

Program Development for Perioperative Nursing Core Competency Training

by

Vernell Dunkley, RN, BSN

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Larry Rankin, PhD, RN, CNE, Chair

Barbara Taylor, PhD, RN, Committee Member

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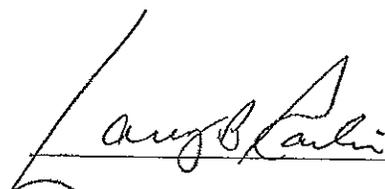
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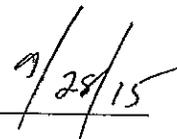
NAME OF STUDENT: Vernell Dunkley, RN, BSN

TITLE OF THESIS: Program Development for Perioperative Nursing Core
Competency Training

COMMITTEE:



Larry Rankin, PhD, RN, CNE, Chair



Date



Barbara Taylor, PhD, RN, Committee Member



Date

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CHAPTER ONE

Introduction

The perioperative environment is an area that demands strong specialized skills in aseptic technique, use of surgical technology and safety. Across the globe, healthcare facilities suffer from perioperative nursing shortages. In 2006, workforce analysts with the US Department of Labor Bureau of Health Statistics projected that more than 581,500 new registered nurse (RN) positions will be created through 2018. There is a critical shortage of trained perioperative nurses in the United States. The demand for trained perioperative nurses in the United States has risen as high as 2% every year (Ball et al., 2015). The nursing shortage in the perioperative environment can contribute to placing many patient lives in danger. Surgical volumes have increased in 2012 (Bacon, 2012). The shortage of nurses will continue to impact healthcare delivery and remain detrimental to critical areas like the perioperative environment.

The American Association of Colleges of Nurses (AACN) stated that the specialty of perioperative nursing is practiced within a setting characterized by rapidly changing technology as well as economic and cultural forces that require continuous change. To meet the needs of this demanding environment, perioperative registered nurses must acquire complex knowledge and skills through formal educational programs. However, the demand for perioperative nurses outweighs the supply due to many contributing factors, including rise for educational needs and decreased supply of teaching programs to provide this education (AORN, 2009).

Numerous perioperative professionals, including members and nonmembers of the Association of Perioperative Registered Nurses (AORN), responded to the 2011 annual AORN Salary Survey focusing on the status of perioperative nursing compensation in the United States. This significant research study tracks compensation changes and identifies factors that influence

how much perioperative nurses are paid. In addition, the survey addresses the perioperative nursing shortage and focuses on perceived changes in staffing-related aspects of the workplace during the previous three years. Results of that year's survey indicated that 66% of staff nurses felt the current nursing shortage was at moderate to crisis level, down from 72% in the previous AORN Salary Survey. Next, 46% of top-level managers reported a moderate to crisis level impact of the shortage on their working environment, compared to 51% of managers who felt that way the previous year. In fact, the staff nurse respondents reported being "least satisfied" with the number of support staff and management support at their facilities (AORN, 2011).

A perioperative nurse training program is vital for the safety and protection of patients. In June 2006, Health Affairs reported 97% of hospitals that participated in a survey titled "Hospitals' Response to Nurse Staffing Shortages," were using educational strategies such as partnering with schools. The AORN has created core competency education online modules called, "Periop 101" and its studies have shown Periop 101 to be effective in staff retention and patient and staff satisfaction. Some healthcare and educational institutions have chosen to utilize these core competencies along with didactic instruction to train perspective perioperative nurses to increase staff retention and satisfaction and quality of healthcare delivery.

Significance of the Problem

Operating room specialists, like many other clinical specialties within the healthcare system, continuously strive to overcome the challenges of the nursing shortage. One study determined that surgical patients in hospitals with high patient-to-nurse ratios experienced higher risk-adjusted 30-day mortality, failure-to-rescue rates, and staff burnout and job dissatisfaction in the perioperative environment (Aiken, Clarke, Sloane, Sochalski, & Silber 2002). In addition, the

researchers noted that having too few perioperative nurses may cost more than replacing a perioperative nurse due to poor patient outcomes.

In 2006, the International Centre for Human Resources in Nursing (ICHRN) released results from the Aging Workforce survey, which showed 55% of surveyed nurses reported their intention to retire between 2011 and 2020. The survey also indicated that by 2010 the US would have more nurses in their fifties than in any other age group. The nursing shortage places an unbearable high risk on patient care and outcomes in critical areas. An operating room nurse training program is necessary to ensure nurses working in this high-paced area are competent, which improves patient outcomes.

Education is essential to building a strong and successful group of perioperative staff nurses that stay and grow in their positions. Education is also tied directly to physician satisfaction, patient satisfaction, and patient outcomes (Matzke, 2008). A study was conducted in Colorado and Utah that examined the incidence and nature of adverse events in the surgical setting. The results showed 66% of all adverse events were surgical in nature and included technique-related complications, postoperative bleeding, infections of all types, medication-related injury, and deep venous thrombosis (Gawande, Thomas, Zinner, & Brennan, 1999). The potential for adverse events can be reduced further by training (IOM, 1999).

The Joint Commission (2011) found a relationship between staff fatigue and patient safety outcomes. Sentinel events such as increase needle sticks, medication error, and wrong-site surgery can all be linked to staff fatigue due to the perioperative nursing shortage and the demand for perioperative nurses.

Problem Statement

For over two decades, the United States has faced the challenges of a nursing shortage that has considerably impacted the quality of care provided by healthcare organizations. Inadequate staffing has compromised patient safety and continues to pose a potential threat to the quality of care given to patients. Nursing training programs improve quality of care, competency of caregivers, and patient outcomes, which continue to be the solution (Durham, Alden 2008). However, perioperative nurse training programs are scarce in US educational institutions or healthcare settings, prompting healthcare facilities to be innovative in finding a solution to the nursing shortage by developing in house perioperative nurse training programs (AORN, 2008).

According to the AORN, basic skills of a staff nurse are providing direct patient care, teaching self-care to patients and families, administering medications, IV therapy and treatments, performing assessments, planning, implementing, evaluating, and documenting care, serving as preceptors and team leaders, supervising RNs, licensed practical nurses (LPNs), and other non-licensed health care practitioners, and advocating for patients and their families. In addition to these skills, perioperative nurses observe surgeries and the surgical team from a broad perspective and assist the team to create and maintain a safe, comfortable environment for patients. The circulator nurse utilizes critical thinking skills while assessing patients' conditions before, during, and after surgery to ensure optimal outcomes. The perioperative nurse circulates during surgery, working directly with surgeons within the sterile field, passing instruments, sponges, and other items needed during procedures, controlling bleeding, using instruments/medical devices, handling and cutting tissue, and suturing during procedures.

Purpose Statement

Research demonstrates evidence of high adverse events in surgery related to lack of training programs (Gawande et al., 1999). Studies have also illustrated evidence of decreased patient outcomes and perioperative nurse satisfaction related to the nursing shortage (AORN, 2008). The purpose of this operating room nursing curriculum design is to provide the registered nurse at any level with the core knowledge, skills, competency, and evidence-based practices necessary for the perioperative environment. The focus of the course is to increase skills in aseptic technique, sterile consciousness, and patient safety in the operating room.

CHAPTER TWO

Review of the Literature

The purpose of this curriculum design is to provide RNs with the critical skills for safe delivery of nursing care and increase desired patient outcomes in the perioperative setting. All educational training is built on evidence based practices and AORN standards. In this chapter the literature related to perioperative nursing roles, skills, competencies, patient needs, safety, surgical environment, and basic principles of technique will be discussed.

The databases searched for this study were Cochrane, EBSCO, AORN, National MEDLINE, Nursing and Allied Health Source, ProQuest, PsychInfo and PubMed. Keywords and phrases used in the searches were *nursing shortage, nursing shortage in the OR, nurse training, perioperative nursing, perioperative education, operating room nurses, operating room, nursing programs, periop 101, and registered nurse circulator.*

Guidelines for the OR Setting

In 1996, TJC enacted a formal Sentinel Event Policy to help hospitals that experience serious adverse events improve patient outcomes and safety and learn from those sentinel events. Meticulous investigation and analysis of Patient Safety Events (events not primarily related to the natural course of the patient's illness or underlying condition), as well as evaluation of corrective actions, is extremely important to reduce risk and avoid patient harm. A *sentinel event* can be defined as an event that contributes to patient death, permanent harm, severe temporary harm, or interventions required to sustain life. Death does not have to occur for an incident to be defined as a sentinel event (TJC, 2014).

TJC has stressed the need to improve surgery-related sentinel events such as wrong-patient, wrong-site, and wrong-procedure incidents and thus, National Patient Safety Goals

(NPSG) for 2014 were drafted to improve surgery and prevent surgery-related sentinel events. According to TJC's Sentinel Events Survey, from 2011-2013 143 wrong-patient, wrong-site, and wrong-procedure incidents occurred. One NPSG for 2014, *Prevent Mistakes in Surgery*, requires that the correct surgery is done on the correct patient at the correct place on the patient's body. This goal is not the sole responsibility of the surgeon performing surgery; it also holds the operating room RN accountable to ensure patient safety by verifying and documenting that this goal is carried out (TJC, 2014).

The AORN-supported intervention to prevent these sentinel events is to have comprehensive procedures and protocols collaboratively developed by multidisciplinary teams that include perioperative RNs, surgeons, anesthesia care providers, risk managers, and other health care professionals. Implementing evidence-based risk-prevention strategies for the identification and verification of the correct patient, surgical site, and procedure will reduce the risk of error. Perioperative RNs are key participants in multidisciplinary teams during the development of procedures and protocols for correct site surgery. As patient advocates, perioperative RNs communicate with all members of the surgical team and other nursing personnel to verify that all components of the standardized process are completed correctly, including but not limited to pre-procedure verification, site marking, and time-out procedures (AORN, 2014).

Orientation Programs

The AORN position statement on orientation to the surgical environment states there are certain basic components that must be incorporated into the orientation (education) of perioperative RNs and certified surgical technologists (CSTs) and that must be met consistently to ensure optimal patient outcomes. The recommended duration for orientation of a novice

perioperative RN is six to twelve months. Orientation programs should be customized to meet the individual needs of each orientee and incorporate the facility-required learning experiences with the orientee's baseline knowledge and preferred learning style. The scope of responsibility of the perioperative RN also includes the scrub role as it relates to patient outcomes. Therefore, the perioperative RN should be oriented to both the scrub and circulating roles during the orientation period. A basic orientation for a novice perioperative RN or CST also should include at least 40 hours for every clinical specialty within his or her defined practice area.

According to the AORN, orientation program facilities may vary and one orientation program may not adequately address every need. Orientation timelines and their effect on the budget vary depending on the capacity of the facility (AORN, 2014). Facilities might consider developing an advisory committee that will incorporate the experiences of perioperative RNs and work with the orientation coordinator to design and implement the orientation program and preceptor development program. Before a new perioperative RN begins to function in his or her environment, the orientation coordinator assesses the ability of the healthcare facility to accommodate the orientee's required learning experiences, baseline knowledge, and preferred learning style.

In its statement, "Value of Clinical Learning Activities in the Perioperative Setting in Undergraduate Nursing Curricula Prerequisites" for perioperative nurse training, the AORN advocates for the inclusion of learning activities in the perioperative setting in all undergraduate professional nursing curricula. The perioperative setting is optimal for applying the nursing process. This implementation can be integrated into the existing curricula of nursing programs and contribute to the desired end-of-program outcomes. The perioperative setting is also an area where there is currently tremendous emphasis on patient safety; therefore, it presents numerous

opportunities to explore human factors and communication theories. All clinical settings, however, have the potential to provide opportunities in which principles of the art and science of professional nursing can be applied; therefore, these settings should be used during the formal education of nurses. The incorporation of perioperative learning activities into existing undergraduate curricula will assist in meeting end-of-program outcomes (AORN, 2014).

According to the AORN, perioperative nursing content and clinical skills should be taught by faculty and cooperating staff (staff serving as preceptors or mentors) who are both academically prepared and clinically experienced (AORN, 2014). Prerequisites for admissions to a perioperative nurse training program should be new graduates and licensed RNs (nurses with a current license in the state of practice).

Recommendations from AORN and Current Programs

The AORN recommends training staff using its signature “Periop 101 Core Competency” modules, which were developed in response to a demand for standardized practice in the perioperative setting. Periop 101 is an online course designed for new nurses. AORN has reported that use of the modules promotes patient satisfaction and improved clinical indicators. Hospitals implementing Periop 101 have also experienced as much as 25% reduction in turnover by implementing this evidence-based education (AORN, 2010). Because one of the primary reasons for staff dissatisfaction is lack of training and continuing education, Periop 101 provides a comprehensive education program for new perioperative nurses that is reported to improve staff satisfaction and retention rates (AORN, 2010).

Perioperative Nursing

The perioperative nurse is a registered nurse who plans, coordinates, delivers, and evaluates nursing care for patients whose protective reflexes or self-care abilities are potentially

compromised during surgical or other invasive procedures. Although the perioperative nurse works collaboratively with other perioperative professionals (e.g., surgeons, anesthesia care providers, and surgical technologists) to meet patient needs, the nurse is accountable for the patient outcomes resulting from the nursing care provided during the surgical or invasive procedure. Armed with clinical knowledge, judgment, and critical-thinking skills based on scientific principles, the perioperative nurse plans and implements care to address the physical, psychological, and spiritual responses of the surgical patient. The goal of perioperative nursing practice is to help patients and their loved ones achieve a level of wellness equal to or greater than that which they had before the procedure (AORN, 2013). Educational training provides the operating room nurse with the ability to make competent patient care decisions in trauma and emergency situations (Lateef, 2010).

Physical Environment of the Operating Room

Perioperative patients experience vulnerabilities including diminished or absent pain defenses and inability to communicate or make personal care decisions. In addition, their interrupted defense mechanisms during invasive procedures demand that patient safety be valued as the fundamental priority even at the expense of productivity. The perioperative setting is one of the most potentially hazardous of all clinical environments (AORN, 2008). These hazards may have an adverse effect on patient outcomes including the potential for infection, hemorrhage, nerve injury, burns, and sentinel events including death. Inadvertent adverse events may occur from a variety of energy sources, chemicals, biologicals, equipment, and devices, as well as numerous supplies and instruments that comprise the surgical arena and patient safety (AORN, 2008).

Understanding Areas of the Operating Room Environment

Unrestricted areas are those in which personnel dressed in street clothes and who have portable equipment that has not been disinfected are confined. This is a monitored area. The *transitional area* is where surgical personnel or visitors prepare to enter the semi-restricted and restricted areas. These areas include locker rooms, restrooms, showers, and storage areas. *Semi restricted areas* are for personnel only wearing surgical attire. The *patient holding area* is the check-in point for inpatients and outpatients receiving surgery. This is where the surgeon, anesthesiologist, and circulating nurse can talk with the patient. If the surgery is an emergency, the patient may be brought from the emergency room straight to the operating room (OR; Fuller, 2012). In the OR there are also corridors that usually lead directly to the *OR suite*, storeroom, scrub areas, and substerile room. *Scrub sink areas* are usually located outside of the OR suite, so personnel can proceed to the OR directly after scrubbing. These areas contain masks, eyewear, scrub brushes and surgical soaps. The *equipment and supply rooms* are used to store large equipment such as microscopes, video towers, and laser units. *Utility work rooms and central processing areas* are where soiled instruments and equipment are decontaminated. The *restricted area* is the cleanest in the OR and includes the surgical suite, procedure rooms, and sterile corridor where flash sterilizers and sterile supplies are located (Fuller, 2012). The *surgical suite* holds equipment such as a gas anesthesia machine, physiological monitors, operating table, supplies, intravenous fluids, and sitting stools.

Perioperative Nurse Knowledge in Environmental Controls

Airflow from unrestricted to restricted areas can increase the risk of infection. To reduce this risk, air pressure in the surgical suite is maintained 10% higher than adjacent semi-restricted areas. Surgical doors must remain closed to maintain the pressure. Air exchange in the surgical suite is a minimum of 15 filtered exchanges to 20 filtered exchanges per hour (Fuller, 2012). The Joint Commission recommends humidity in the surgical suite to be 50%-55% to decrease the growth of bacteria. Temperature controls in the area must be maintained between 20-23 degrees Celsius (68-73 degrees Fahrenheit). Electrical outlets must be grounded to prevent accidental disconnection and possible damage to the cords. Inline sources of oxygen, nitrous oxide, and compressed air must be fitted with a lock device and hung from the ceiling. Main control valves are located outside of the surgical suite (Fuller, 2012). Lighting in the surgical suite is produced by main overhead fluorescent lights and by surrounding spot lights with halogen light bulbs, which are less fatiguing to the eyes (Fuller, 2012).

Perioperative Nurse Core Competencies

Medication and Anesthesia

Patient allergies, medication administration, and solutions are core competencies because studies show patient safety issues are on the rise with medication errors comprising a large portion of medical accidents. Recent studies have received the attention of healthcare providers and organizations as well as safety experts and federal and state lawmakers. In 1999, the Institutes of Medicine (IOM) published the report, "To Err is Human," which contained the statistic that 44,000 to 98,000 people die each year from medical accidents costing \$17-\$29 billion for preventable adverse medical events. The IOM reported that adverse events in surgery account for 20% of the errors in healthcare, while medication errors make up about 16% of all medical adverse events (Stelfox et al., 2006). According to the U.S. Food and Drug

Administration (FDA; 2011), more than 770,000 patients are injured by medication errors each year.

The AORN 2015 standards of practice require that perioperative nurses have basic knowledge, skills, and competency in two areas of recommended practice to reduce and prevent adverse medical events and medication errors: 1) manage the patient receiving moderate sedation/analgesia, and 2) assign a trained RN working within a state board of nursing regulations to monitor patients and administer medications during the procedural sedation. Thus, anesthesia is a competency for the perioperative nurse. In addition, perioperative nurses frequently provide moderate sedation in endoscopy procedures, which requires competence and skill. Proposal IX of AORN's Recommended Practices for Managing the Patient Receiving Moderate sedation/analgesia states, "the perioperative nurse should be clinically competent, possessing the skills necessary to manage the nursing care of the patient receiving moderate sedation/analgesia." Delivering quality and competent patient care in this area means nurses must recognize the complications associated with sedation/analgesia and have knowledge of anatomy and physiology. Nurse competencies should include but are not limited to patient selection and assessment criteria, selection, function, and proficiency in use of physiological monitoring equipment, pharmacology of the medications used, airway management equipment use, basic dysrhythmia recognition and management, emergency response and management, advanced cardiac life support (ACLS) and pediatric advanced life support (PALS).

Electrosurgery and Prepping Safety

Knowledge and skills in aseptic technique, proper documentation, and equipment use provide steps to help minimize avoidable infection and risk of injury during invasive or surgical procedures. A perioperative nurse must also be competent in electrosurgery and prepping.

Competency must include the proper use of skin prep and safety by assessing the flammability of all materials used on, near, or around the patient. In a study, 70% of reported surgical and procedural fires resulted from electrosurgical equipment use and an additional 10% involved lasers. The remaining 20% occur from other heat producing sources found in surgical and procedural settings (e.g., fiberoptic light sources, high-speed power equipment, electrocautery devices, and electrical shorts in equipment). The oxygen-enriched environment found in perioperative settings and the presence of alcohol-based prepping agents contributed to approximately 79% of all surgical fires (Fuller, 2012). Events reported to healthcare regulatory and research agencies identified that 21% of patient injuries involve the airway or oropharyngeal locations, 44% involve the head, neck, or upper chest, 26% are other patient surface fires, and 8% of reported fires occur inside the patient (Fuller, 2012). Thus, it is critical that the perioperative nurse have be competent in the following: knowledge of rescuer methods, knowledge of medical gas panel location and operation, knowledge of ventilation and electrical system location and operation, including the personnel authorized to turn off, and knowledge of how fire occurs when all three elements of the Fire Triangle (oxidizers, fuels sources, and ignition sources) come together. Surgical and procedural settings require clinicians to use these elements in close proximity for perioperative patient care.

Infection Control

Environmental sanitation and terminal cleaning are important to reduce the spread of disease, as the operating room surface poses hazards for both patients and staff. Clean and contaminated areas should be kept physically separated when possible. An example is placing the central processing decontamination area away from the surgical suite (Fuller, 2013). When physical separation is impossible, contaminated matter are contained and confined. For example,

scrub attire (bouffant and gown) to contain hair and skin and hand washing before and after patient contact prevent contamination of the sterile field. The Centers for Disease Control and Prevention (CDC, 2013) recommends taking the following steps to prevent the spread of infection in the operating room environment: 1) maintain positive-pressure ventilation in corridors and adjacent areas should be fresh air, 2) filter all re-circulated and fresh air in OR rooms through the appropriate filters, providing 90% efficiency (dust-spot testing) at a minimum, 3) introduce air at the ceiling and exhaust air near the floor in OR rooms not engineered for horizontal laminar airflow, 4) eliminate use of ultraviolet (UV) lights to prevent surgical-site infections, and 5) close the operating room doors except for the passage of equipment, personnel, and patients, and limit entry to essential personnel.

Personnel must follow precautionary procedures for infectious Tuberculosis patients who also require emergency surgery. Personnel must use an N95 respirator approved by the National Institute for Occupational Safety and Health without exhalation valves in the operating room. The Occupational Safety and Health Administration's (OSHA) Code of Federal Regulations, includes guidelines for intubating a patient in the operating room. If intubating the patient in the operating room, personnel must not allow the doors to open until 99% of the airborne contaminants are removed. When anesthetizing a patient with confirmed or suspected TB, personnel must place a bacterial filter between the anesthesia circuit and the patient's airway to prevent contamination of anesthesia equipment or discharge of tubercle bacilli into the ambient air. Precautions must also be enforced when extubating and allowing the patient to recover in an AII room. If the patient has to be extubated in the operating room, personnel should allow adequate time for Air Changes per Hour (ACH) to clean 99% of airborne particles from the air, because extubation is a cough- producing procedure.

Hemostasis is defined as maintain the body's total blood volume and controlling bleeding. In the operating room, a variety of hemostatic agents and devices can be used to achieve the goal of minimal loss of blood volume (Fuller, 2012). For example, surgical sponges, drains and coagulation devices, pneumatic tourniquets, and topical hemostatic agents (platelet concentration, topical thrombin, and oxidized cellulose) are options available during surgical procedures to reduce blood loss. Additional competencies required for perioperative nurses thus include critical thinking, patient and family education, peri-anesthesia nursing, perioperative assessment, patient assessment, professionalism, patient safety, scrubbing, gowning, gloving, specimen handling, sterilization and disinfection, proper use of surgical draping to ensure that oxygen is not accumulating beneath the drapes, surgical instruments, and wound closure and healing.

The Surgical Team

Surgical Technologist

The AST (2014) describes Surgical Technologist (ST) duties such as operating room preparation, testing operational efficiency of equipment prior to the surgical procedure, assisting the circulator as directed, and setting up cases in a timely and orderly manner. STs also perform intra-operative duties such as maintaining aseptic technique, preparing specimens, obtaining and giving accurate reports to the relief person, anticipating the additional needs of the surgeon, scrubbing specialty procedures independently, and scrubbing procedures outside of specialty. In addition, STs perform post-operative duties such as assisting with room turnover, returning instruments to the sterile processing department, preparing and maintaining instruments, cleaning instruments/scopes thoroughly, operating the Steris unit using approved quick connect and leak testing with accuracy, operating the autoclave unit, and documenting all required information in

Steris and the autoclave log with 100% accuracy. ST performance standards also include maintaining orderliness and cleanliness of assigned area, promptly returning supplies & equipment to the correct location, checking and restocking assigned surgical suites, disposing of trash and linen after each case, using/replacing sharps containers, replacing suction liners and tubing, preparing for daily cases, assuring that cases have complete case cart, supplies and equipment, and planning ahead for instrumentation needs, inventory and/or open cavity counts of instruments on all cases (AST, 2014).

Perioperative Nurse

The AORN board describes the perioperative/operating room nurse role as a circulating RN, or a nurse that utilizes professional judgment to direct, manage, and delegate the nursing aspects of care throughout the perioperative phase. Circulating during surgery is a perioperative nursing function. The circulator is responsible for managing the nursing care of the patient within the OR and coordinating the needs of the surgical team with other care providers necessary for completion of surgery (AORN, 2014). The scrub nurse works directly with the surgeon within the sterile field, passing instruments, sponges, and other items needed during the procedure.

Anesthesiologists

Anesthesiologists have a vital role in the perioperative setting. The American Society of Anesthesiologists (ASA) is an organization that provides standards, guidelines, and statements to improve decision making and promote beneficial outcomes for the practice of anesthesiology. The ASA standards provide rules or minimum requirements for clinical practice and systematically developed recommendations that assist the practitioner and patient in making decisions about healthcare. Anesthesiologists are intended to encourage quality patient care, but observing them cannot guarantee any specific patient outcome. Qualified anesthesia is present in

the room throughout the conduct of all general anesthetics, regional anesthetics, and monitored anesthesia care. During all anesthetics, the patient's oxygenation, ventilation, circulation, and temperature are continually evaluated by the anesthesiologist (ASA, 2014).

Patient Needs and Safety

According to the AORN standards and recommended practices, it is the right of every patient to receive the highest quality of care in all surgical/procedural settings; in order for this to occur, all healthcare providers must collaboratively strive to create an environment of patient safety. Safe management of the patient's care, technical sources, and human factors (e.g., communication, institutional culture, and staffing patterns) are the fundamental components in creating a safe, team-based perioperative environment. Perioperative nurses use the Perioperative Nursing Data Set (PNDS) to describe patient care interventions and actions taken to protect the patient and promote positive patient outcomes and the resources required to accomplish the expected outcomes. The safety of patients undergoing operative or other invasive procedures is the primary responsibility of the perioperative RN.

Every patient scheduled for a surgical or invasive procedure deserves to have a registered nurse throughout the continuum of perioperative care, including an RN in the role of circulator. The perioperative RN forms a professional bond with the patient through patient advocacy and this bond is strengthened through nursing interventions that promote optimal surgical and procedural outcomes (AORN, 2008). The patient's physical and emotional needs are entrusted to the perioperative RN by the patient and his or her family members, who also believe that patient care will be safely and effectively delivered by the entire healthcare team.

Basic Principles of Aseptic Techniques

Asepsis is a condition in which the body is considered “sterile” and free of infectious organisms (Fuller, 2012). Aseptic technique is the method used to achieve this goal. Aseptic technique is when one is motivated to protect the patient and is modeled at the highest standard of practice (Fuller, 2012). Aseptic technique is based on surgical consciousness—the ethical and professional motivation that regulates one’s aseptic technique (Fuller, 2012). It is the responsibility of all surgical team members to report and respond to breaks in aseptic technique. In the case of gross contamination, the patient may be started on antibiotics. The perioperative nurse must engage in the practice of surgical technology, or intraoperative application of the principles of aseptic technique and instrumentation practices as performed by the surgical technologist.

The Association of Surgical Technologists (AST) was established in 1969 by members of the American College of Surgeons (ACS), the American Hospital Association (AHA), and the AORN. All associations define the highest standards and traditions of aseptic technique and quality of surgical patient care. There are three basic principles of asepsis that must be applied to all patients: 1) a sterile field is created for each surgical procedure. 2) sterile team members must be appropriately attired prior to entering the sterile field, and 3) movement in and around the sterile field must not compromise the field. These principles form the basis for the development of surgical conscience as applied to the surgical treatment of patients.

Conceptual Framework

In 1984, American educational theorist David A. Kolb published *Experiential Learning: Experience as the Source of Learning and Development*, which built upon earlier works by John Dewey and Kurt Levin. According to Kolb, “learning is the process whereby knowledge is created through the transformation of experience” (Kolb, 1984). Experiential learning theory presents a cyclical model of learning, consisting of four stages: concrete experience (do), reflective observation (observe), abstract conceptualization (think), and active experimentation (plan). A person may begin at any stage, but must advance through the next stages in sequence. Kolb’s four-stage learning cycle shows how experience is translated through reflection into concepts, which in turn guide active experimentation and the choice of new experiences. The first stage, concrete experience (CE), is where the learner experiences an activity such as a lab session or field work. The second stage, reflective observation (RO), is when the learner consciously reflects back on that experience. The third stage, abstract conceptualization (AC), is where the learner attempts to conceptualize a theory or model of what was observed. The fourth stage, active experimentation (AE), is where the learner is plans how to test that model or theory or plan for a future experience.

Kolb’s experiential learning theory is a holistic perspective that combines experience, perception, cognition, and behavior. Kolb identified four learning styles that correspond to these stages. The styles highlight conditions under which learners can better learn. The first style is the high-fidelity assimilator, for those who learn better when presented with sound logical theories to consider. The second style is converger, for those who learn better when provided with practical applications of concepts and theories. Third is accommodator, for those who learn better when provided with hands-on experiences. The fourth style is the diverger, for those who learn better when allowed to observe and collect a wide range of information.

CHAPTER THREE

Methods

The curriculum will provide basic perioperative nursing knowledge and skills such as sterile consciousness, communication, perioperative patient assessment, aseptic technique, surgical procedures, role of the perioperative nurse, standard practices and guidelines, handling specimens, infectious disease control, hazardous materials and waste, anesthetic gases, and pharmacology in the operating room. There are three categories in the curriculum design: theory, laboratory practicum, and clinical skills.

Theory

Introduction to Basic Perioperative Nursing allows students participate in 144 hours of lecture beginning in August and ending in December. Students will define and discuss roles and responsibilities of each perioperative team member as well as the responsibilities of a member of the Association of Operating Room Nurses (AORN). Students will identify and define the operating room personnel scope of practice as it relates to anesthesia and the Patient's Bill of Rights. Students will list and describe factors that increase surgical patients' risk for infection and demonstrate interventions to reduce risk of surgical infection. Students will also describe and demonstrate principles of aseptic technique in the surgical setting and identify the perioperative nursing role during the patient induction phase and emergence from anesthesia.

Patient Management

A common practice provided by perioperative nurses when caring for patients having surgery is continuous assessment throughout the entire care period for each individual patient (Malley et al,2015). The initial patient assessment provides a baseline in which information is provided by the patient or a family member, guardian, significant other, or spouse. During the

initial assessment period, it is critical that the perioperative nurse develop individualized patient care plans and identify expected outcomes (Malley et al, 2015). Individual patient differences affect the delivery of care. For example, physical size, age, height, and mobility must be assessed to assure proper equipment use designed for patient differences.

Perioperative students will receive training for management of the surgical patient and family members. Care for patient, preparing the patient for surgery, and high-risk reductions are core competencies included in the training program (Appendix B). Students will focus on patient risk factors, human response patterns (e.g., patients' perceptions, feelings, and knowledge), and functional health patterns (e.g., self-perception, health perception, values, and beliefs; North American Nursing Diagnosis Association, 2014) throughout the entire care period, and they will formulate nursing diagnoses and care plans. Students will also assess surgical patients for high risk factors such as obesity, age, weight, diabetes, heart disease, and allergies.

Aseptic Technique

In order to prevent the spread of infectious disease the perioperative nurse must provide and maintain a clean environment and a sterile field. The process for reducing surgical infections in a surgical environment specific skills and techniques called "aseptic technique" must be used for preventive measures (Fuller, 2012). Aseptic technique is defined as possession of skills and techniques that restrict cross contamination of microorganisms (Fuller,2012).

Perioperative nursing students will learn theory, participate in activities that involve the use of aseptic technique, and perform skills in the surgical environment (Appendix B). Common aseptic technique activities in the operating room include foley catheter placement, opening sterile supplies, surgical hand scrubbing, and disinfection and terminal cleaning of equipment. Students will demonstrate foley catheter insertion without cross contamination. Students will

demonstrate a proper three-minute surgical hand scrub and identify sterile technique for opening surgical supplies onto the sterile field.

CHAPTER FOUR

Results

Methods of Evaluation

The perioperative nurse training program's effectiveness can be evaluated by tracking and recording student progression, student satisfaction, and employer satisfaction. The students' progress in the clinical setting is measured daily using a skills evaluation form completed by the assigned preceptors. Skills evaluation focuses on five areas of patient safety specific to the surgical patient: general knowledge of the surgical procedure, aseptic technique, sterile consciousness, positioning, and safe handling of operating room equipment.

The daily skills evaluation form will measure students' progression towards achieving competency by the end of each surgical specialty rotation. Brenner's novice-to-expert model is used in categories for each skill. The progression is measured to show a direct link in relation to program effectiveness and student achievement. Student and employer satisfaction surveys must be submitted within 60 days of program completion. Skills and survey data are used to measure effectiveness of the perioperative nurse training program.

CHAPTER FIVE

Discussion

Perioperative nurse training programs are vital for the safety and protection of patients. The AORN has created a program of core competencies titled “Periop 101,” which studies have shown to be effective in staff retention, patient and staff satisfaction. Some healthcare and educational institutions have chosen to utilize the core competencies along with didactic instruction when training prospective perioperative nurses to increase staff retention and satisfaction.

The limitations to providing perioperative nurse training are available, qualified staff to train nurses and money to create and fund training programs within healthcare institutions. The academic structures and healthcare industries must partner to close the gap and save costs by providing training for nurses with the desire to work in the operating room setting. The AORN supports academic institutions’ desire to promote training of operating room nurses.

More programs must be developed to meet the demands for the needs of the fast-growing surgical specialty throughout the US. AORN’s Periop 101 should be used along with instruction and laboratory practice for RNs that are new to the operating room. Nurse and employer satisfaction rates should be reevaluated for correlations with continued research into perioperative nurse training programs.

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Appendix A

Didactic/Laboratory Practicum

Basic Perioperative Nursing

Syllabus

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Role of the Operating Room Nurse (www.aorn.org)

Section III

Weekly Schedule

SOUTHWESTERN COLLEGE

ORN 101

Class and Instructor's Information

Class Information**ORN 101 OPERATING ROOM NURSING****Professor: Vernell Dunkley**

Cell: (858) 204-8763 (available 0800-1600)

Email: vdunkley100@pointloma.edu

Office Hours: By appointment only

Course Description / Outcomes

Course Description: (15 Unit course)

Provides opportunities for the Registered Nurse seeking employment in the operating room. Introduces the guidelines from the Association of Operating Room Nurses that includes: aseptic technique, staff and patient safety, surgical management, consent, surgical high risk factors, sentinel events, and professional issues.

Student Learning Outcome:

Upon completion of this course, the student will assess and analyze patient data in the pre-operative setting to determine patient readiness for the intraoperative setting.

Course Outcomes:

1. Student will identify the members of the surgical team and discuss the roles of each.
2. Student will identify and apply interventions that have a direct impact on patient outcomes in selected practice scenarios and in group discussions.
3. Student will describe and apply the nursing process when developing a patient care plan for a specific perioperative situation including the outcomes of patient and family.
4. Student will identify basic clinical practice guidelines and describe standard precautions, high risk management, and care of young adults.
5. Student will identify and utilize perioperative assessment tools for age specific patients with special needs.
6. Student will describe and discuss time management and organizational skills required to provide safe patient care.

7. Student will recognize feelings and thoughts that the surgical experience produces in the healthcare provider, evaluate outcomes and healthy stress relieving activities.
8. Student will identify job related stress factors and discuss coping mechanisms exhibited by the surgical team in specific situations.
9. Student will analyze use of formulas for medication requiring conversion of equivalents and demonstrate proficiency in dosage calculations.
10. Student will list and categorize the varied perioperative medications and general anesthetic agents.
11. Student will identify and discuss accountability factors of the varied operating room personnel in terms of ethical, moral and legal responsibilities.
12. Student will describe the operating room nurse's scope of practice as well as list any potential ethical conflicts as it relates to use of anesthesia, management of the intraoperative surgical phase and the Patient's Bill of Rights.
13. Student will discuss and analyze new surgical technology procedures, equipment and responsibilities related to procedures.
14. Student will describe the roles and responsibilities of the varied perioperative professionals and analyze their varied scopes of practice.
15. Student will describe potential workplace hazards that can be present in the perioperative setting and discuss preventative actions that can be taken.
16. Student will formulate a plan to prevent hazards in the perioperative setting and describe the operational procedures for this plan.
17. Student will recognize and describe assembly of all instruments and supplies for varied surgical procedures.
18. Student will describe the critical thinking process utilized in the perioperative setting and demonstrate utilization of this process in the clinical setting.
19. Student will identify and apply interventions that have a direct and positive impact on patient outcomes in selected practice scenarios and in group discussions.
20. Student will analyze and discuss practice guidelines for high risk patients, young children as well as standard precautions for the perioperative patient.
21. Student will identify and discuss communication styles as well as cultural impact in the perioperative setting.
22. Student will research and evaluate a computer-generated literature review and search for evidence based practice related to nursing skills utilized in the perioperative setting for special populations.
23. Student will analyze and discuss ethical, medical-legal, and moral responsibilities of the perioperative nurse during the intraoperative phase of patient care.
24. Student will categorize and discuss the varied roles and responsibilities of a member of the Association of Perioperative Registered Nurses (AORN).
25. Student will formulate and discuss a plan of care for a patient's spiritual and cultural needs in the perioperative setting.

Requirements: This course offers 16 hours a week in didactic and skills practicum Monday and Tuesdays from 0700-1530 for 36 weeks. Applications are accepted every August. To enroll in

this course you must have a valid RN license or RN interim permit for the state in which you are to practice. You must have a current BLS (AHA) and ACLS (AHA).

Attendance: You may not miss more than 30 hours of class.

Methods of Evaluation:

1. Homework Assignments- Weekly Test 25 questions (**worth 25 points each**)-**Total 14 test (worth 350 points), Evidence Based Practice Power Point Presentation/Paper (worth 50 points), Suture Model (worth 50 points), Group Poster Board Aseptic Technique (worth 50 points)** All paper must be typed in APA Format (please seek assistance at writing center if not familiar with APA) email all papers prior to due date no later than 10pm. Vernell.
2. Demonstrates- Understanding of a selected EBP topic using a powerpoint (**required;evaluated**) *“EBP powerpoint presentation” in Homework assignments*
3. Comprehensive assessment in the major-Final Exam (**worth 100 points required**)

Criteria for Grading Scale

A=600-540 (600 total possible points)

B=539-480

C=479-450

Below 450= Failure

- **Please note no curving grades, you get what you earn**
- **Every late assignment submitted after 10pm on due date is docked 15 points for each day late. There will be no credit given for late/ absent journal entries.**
- **All students must pass all assignments and test with 90% or higher to pass course**

Teaching strategies: Test, Journaling, Role play via media (Ed Heads, Research Best Practice and Websites).

ORN 101/102CL

Textbooks/Websites

Textbooks:

- AORN Recommendations and Standard Practices Guide (2014)
- Alexander's Care of the Patient, Rothrock (required ORN 101)
- Pocket Guide to the OR-M.Goldman (required ORN 102CL, any ed)
- Operating Room Techniques-Berry and Kohn
(required ORN 102 CL,any ed)
- Pharmacology-Snyder and Keegan (recommended)
- Fuller, Joanna . Surgical Technology: Principles and Practice. (6th edition with workbook). St. Louis: Elsevier (recommended ORN 102 CL any ed)
- Differentiating Instruments-Rutherford (required ORN 101/ ORN 102CL)
Differentiating Equipment- Rutherford (Recommended ORN 102L)

Websites:

- <https://evolve.elsevier.com/>
- [www.http://www.aorn.org](http://www.aorn.org) Association of periOperative Registered Nurses
- [www.http://www.who.int](http://www.who.int) World Health Organization
- [www.http://www.cdc.gov](http://www.cdc.gov) Center for Disease Control

PERIOPERATIVE NURSING TRAINING PROGRAM

FIRST SEMESTER: Enrollment fees \$2500 per unit

Register for:

ORN 101 15 units

ORN 102CL 12 units

Total: 27 Units

Materials Fee: \$300

Uniforms (blue scrub suits) (separates)\$55.00 -125.00

(Should have several sets of scrubs plus tennis shoes)

Name pin\$20.00

Malpractice insurance (RNs to obtain prior to starting)\$60.00-\$100

AORN Membership (Free with Periop 101 Registration)\$125.00

AORN PERIOP 101 MODULES\$795.00

ALL PRICES ARE APPROXIMATE, DO NOT INCLUDE TAX, AND ARE SUBJECT TO CHANGE.

<p>Readings/Assignments-Fall 2014 ORN 102CL</p>
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Weekly Modules

<u>Date</u>	Assignments / Readings
August 19-September 6	Clinical assignments, Clinical paperwork, Clinical tours
September 10-September 13	Clinical-Rotation to Pre-op, Berry & Kohn-Preop preparation, Potential Periop Complications
September 17-September 19	Clinical-Rotation to Pacu

	Berry &Kohn-Postoperative patient
September 24-September 26	Clinical- Rotation to SPD Berry& Kohn-Decontamination& Disinfection Sterilization
October 1-October 3-	Clinical-Rotation to OR (General Surgery) Differentiating Supplies-Rutherford Berry & Kohn-Anesthseia Techniques, General Surgery
October 8-October 10	Clinical Rotation to OR (General Surgery) Berry&Kohn-Endoscopy, Fuller-General Surgery
October 15-October 17	Clinical Rotation to OR (General Surgery, Plastics) Fuller-General Surgery, Plastics
October 22-October	Clinical Rotation to OR (Gyn/ Ortho) Fuller- GYN/ ORTHO
October 29-October 31	Clinical Rotation to OR (Gyn/ Ortho)
November 5-November 7	Clinical Rotation to OR (Gyn/ Ortho/ENT) Fuller- Maxillfacial/ENT
November 12-November 14	Clinical Rotation to OR (Gyn/ Ortho/ENT)
November 19-November 21	Clinical Rotation to OR (Gyn/ Ortho/ vasc/uro) Fuller-Vascular/ Urology Fulltime Clinicals-32-40 hrs
November 26- 27 November 28- No Class	Presentations EBP Presentations-Preps
December 3-5	Presentations EBP Presentations- Preps
December 9-12	Clinical Rotation to OR (Gyn/ Ortho/ vasc/uro/eyes) (Scrubbing 40 hours must be complete this week in general /ortho minor) Periop 101 Modules complete
December 17	(Scrubbing 40 hours must be complete this week)Periop 101 Modules Final Exam

***All written/presentations assignments due by 10pm via email prior to the assigned due date to Vernell Dunkley.**

All clinical forms to be turned into Vernell Dunkley scan and email to vdunkley100@pointloma.edu

Appendix B

Perioperative Nursing Competencies/ Teaching and Learning Activities

Perioperative Nursing Competency	Action Learning	Problem-Based Learning	Skill Training	Lecture
Patient management (1) Care of individuals and families (2) Prepare the OR for surgical procedures (3) High risk reduction	Utilize high fidelity manikins	Develop a plan for patient needs in the perioperative setting	Communication skills	Critical thinking and surgical patient preparation
Aseptic technique (1) Reduction of surgical related infections (2) Prevention of cross – contamination	Assisting in opening sterile supplies and creating sterile fields	Role Playing addressing need for sterile consciousness to prevent spread disease or cross contamination	Aseptic technique	Infectious disease control and prevention
Safety competencies (1) Communication (2) Surgical Instruments (3) Retained sterile items	Audibly count instruments, sponges and sharps, retainable items	Dealing with barriers during wound closure	Critical thinking	Surgical counts
Pharmacology (1) Anesthetic medications (2) Medication safety	Define the various anesthetic agents and general anesthesia	Develop intraoperative plan to prevent complications during the intubation period	Time management	Intraoperative pharmacology
Technology (1) Equipment devices	Demonstrate proper use of positioning devices and OR equipment	Troubleshooting equipment to work properly and prevent patient and staff injury	Critical thinking	Operating room

Homework Assignment

Rubric: Evidence Based Project

Topic :Prep Solutions Poster Presentation

Worth:100 pts

Due: no later than 11/05/2015

	Exceeds Expectations 100 pts	Meets Expectations 75pts	Below Standards 50pts
Purpose Statement 5pts (place on poster board)	Clearly states the idea or purpose of your presentation	Clearly states the idea or purpose of your presentation	Lacks clear statement of the idea or purpose of your presentation
Abstract 20pts (Place on poster board)	Clearly states topic of your presentation, states purpose of project,description of the topic and include findings in articles and research studies, and state recommendations	Clearly states topic of your presentation, states purpose of project,description of the topic and include findings in articles or research studies,and state recommendations	Failure to clearly state topic of your presentation, states purpose of project,description of the topic and include findings in articles or research studies and state recommended practice
Literature Review 25pts (place copy in a folder)	Utilize four or more studies or professional articles which support your topic	Utilize ≤ 4 studies or professional articles which support your topic	Utilize ≤ 2 studies or professional articles which support your topic
Recommended Implementation of Practice 20pts (Place on poster board)	State implementations and recommended practice based on literature review of studies and articles	State implementations and recommended practice based on literature review of studies or articles	Excludes or incomplete statement of implementations and recommended practice based on literature review
Presentation 30pts	Visual Aids(videos, powerpoint Hand-outs,Poster Board) Eye Contact, Presentation ≤ 10 minutes	Visual Aids(videos, powerpoint Hand-outs,Poster Board) Eye Contact, Presentation 5 minutes	Visual Aids(videos, powerpoint Hand-outs,Poster Board) Eye Contact, Presentation ≤ 3 minutes

Skills Demonstration Test Perioperative Nursing Program

Demonstration Skills

Only one (1) attempt: No Retesting & No Postponing

STUDENT'S NAME: _____

Objective: In **(13) minutes**, the student will be able to demonstrate items 3 through 6 listed below. Additional time will be given for item 1&2,7 -10 The student will answer 4/5 oral questions **correctly** during simulation (2 regarding basic operating room techniques and 3 regarding procedure specific questions). **ALL SKILLS MUST BE PERFORMED WITHIN THE STANDARDS OF THE AST/AORN RECOMMENDED PRACTICES. FAILURE TO DO SO WILL RESULT IN FAILURE OF THE FINAL DEMO.**

1. Be in proper operating room attire. **CHOOSE PROCEDURE FROM BOX**
2. **GATHER SUPPLIES AND INSTRUMENTS AND EQUIPMENT NEEDED FOR THAT PROCEDURE INCLUDING TOWER, BOVIE, SUCTION ETC.**
3. Open gown and gloves, supplies, instruments, back table set-up pack, basin set, and all peel pack items needed for an **LAPAROSCOPIC APPENDECTOMY and OPEN APPENDECTOMY PROCEDURE**
4. Scrub, gown, and glove.
5. Set up instruments AND SUPPLIES on the back table and a Mayo Stand FOR CHOSEN PROCEDURE.
6. Set up the Mayo stand for CHOSEN PROCEDURE.
7. Count sponges, sharps, instruments and any retainable items (ex. Dr.Fog etc.) with instructor.
8. Properly drape for THE CHOSEN surgical procedure.
9. Pass instruments and needed supplies, including medication to the surgeon during a simulation of performing the Chosen Procedure.
- 10.Count appropriate items at the correct times when procedure is concluding.

YOU WILL BE GRADED ON A PASS/FAIL BASIS.

PASS	FAIL	DATE	INSTRUCTOR'S SIGNATURE

Comments:

The following skills will be evaluated during the final. You must be competent in the following areas; **Patient Safety, Sharps, Passing Instruments, Aseptic Technique** including but not limited to properly closed/open gloving and open gloving properly

Clinical Rotation Plan

Student Name-

Perioperative Nurse Training Program

Individual Student Plan

Week of	Rotation Location	Experience	Clinical Days	Hours	Learning Outcome
	Orientation	Orientation to Unit One Day Preop One Day PACU	TUES/WED	36-40	OR Environment Preop-interview patients, document and chart, implement & administer preop orders per MD Pacu-Recover, pain management, device use such as CPM, pain pumps, IV pumps
	SPD	Sterile Processing Department	TUES/WED	36-40	Sterile processing of instruments. Cleaning, washing, wrapping, labeling, placing sterile integrators in trays to be processed, run bowie dick test, competent in used of the autoclave
	Main OR	*Observe One Day *Minor General- (assist-circulate)	TUES-FRIDAY	36-40	Circulating: intraoperative interview of patient, preparing OR for general procedure, Positioning, and Prepping.
	Main OR	Minor General Procedures- (circulate)	TUES-FRIDAY	36-40	Circulating: intraoperative interview of patient, preparing OR for

					Ophthalmology procedures, Positioning, and Prepping.
	Main OR	Minor General (circulate)	TUES-FRIDAY	36-40	Circulating: intraoperative interview of patient, preparing OR for Ortho procedure, Positioning, and Prepping.
	Main OR	General , Plastic, Ophthalmic- (circulate)	TUES-FRIDAY	36-40	Circulating: intraoperative interview of patient, preparing OR for plastic,general,ophthalmic procedures, Positioning, and Prepping.
	Main OR	GYN, Ophthalmic- (circulate)	TUES-FRIDAY	36-40	Circulating: intraoperative interview of patient, preparing OR for GYN,ophthalmic procedures, Positioning, and Prepping.
	Main OR	Ortho, ENT- (circulate)	TUES-FRIDAY	36-40	Circulating: intraoperative interview of patient, preparing OR for Ortho procedure, Positioning, and Prepping.
	Main OR	Ortho, ENT- (circulate)	TUES-FRIDAY	36-40	Circulating: intraoperative interview of patient, preparing OR for Ortho,ENT procedure, Positioning, and Prepping.
	Main OR	Ortho, ENT NEURO- (circulate)	TUES-FRIDAY	36-40	Circulating: intraoperative interview of patient, preparing OR for Ortho,Neuro procedure,

					Positioning, and Prepping.
	Main OR	Major General, Ortho, NEURO (circulate)	TUES-FRIDAY	36-40	Circulating: intraoperative interview of patient, preparing OR for General, Ortho, Neuro procedure, Positioning, and Prepping.
	Main OR	Scrub 40hours Ex.lap chole, lap appy, hernias, bowel resection	TUES-FRIDAY	36-40	
				Total Hours:	

Student Evaluations Perioperative Nurse Training Program

Preceptor’s Clinical Evaluation of Student Form

Student’s Name: _____

Date: _____

Preceptor’s Name: _____

Title: _____

Instructions: Please evaluate the student honestly. This evaluation measures progression in the clinical environment.

Procedure Name:	Expert No assistance, Solo scrubs, Understands procedure	Competent Minimal assistance Able to demonstrate basic skills and describe surgery	Advance Beginner minimal guidance and some understanding of procedure	Novice Dependent Needs instruction not able to solo demonstrate skills, no evidence of understanding procedure
1. Knowledge of Procedure Can describe the procedure in detail utilizing a procedure analysis including anatomy, physiology, pre-op diagnosis, and disease processes				
2. Priority setting Can figure out the sequence of events				
3. Organizational Skills Set up organized and conducive for safe practice				
4. Assisting in Opening Sterile items				
5. Anticipation of Surgeons needs				
6. Passing of Sharps & Instruments Meets AST standards ,utilizing a neutral zone/safety zone for sharps				
7. Sterile Consciousness Practicing Aseptic Technique, minimal breaks in technique, acknowledging breaks in technique and reporting them immediately				

Please make additional comments on students overall attitude, professionalism and skill: _____

The Perioperative Nurse Training Graduation Requirements



Items needed to receive your certificate:

- Your time sheet should show at least 350 hours and rotation through all surgical specialties in the Operating Room.
- You will need to complete at least 10 evaluations from your preceptors while you were circulating. You will need at least 3 evaluations from preceptors while you scrubbed.
- You should begin scrubbing for at least 32 hrs. Your clinical experience log hours should be completed and accurate with the cases you have scrubbed and circulated or conferences attended.
- You will need to complete weekly journals on blackboard of all your activities for each week. This should include the type of cases you have scrubbed or circulated, what was learned and your preceptor. You should report what your goals are for the next week. This should be done at the end of every week.
- You need to complete 40 Procedure Analysis reports for all cases you have been involved with. These should be completed the day before the procedure when you can. If this cannot be completed before the procedure, it should be done after the procedure.
- You must submit your Evidence-Based Practice on Surgical Prep Paper and Presentation.
- You must turn in your Reflect, Review and Respond paper.

Perioperative Multiple Choice Testing

Identify the letter of the choice that best completes the statement or answers the question.

- _____ 1. When using the ESU, the patient must remove all body jewelry in order to prevent _____.
a. an alternate site burn
b. a surgical site infection
c. contamination of the sterile field
d. electrocution
- _____ 2. _____ is reactive and does not cause resistance to the flow of electricity.
a. Surgical prep solution
b. A grounding pad
c. A nonconductive holster for an active electrode
d. Metal
- _____ 3. To prevent impedance and patient injury during endoscopic surgery, _____ should be used.
a. disposable plastic ports
b. metal-sheathed endoscopic instruments
c. irrigation fluid
d. two grounding pads
- _____ 4. When using an ESU, the arcing or spray mode creates the highest peak voltage available; this mode is used for _____.
a. cutting
b. fulguration
c. coagulation
d. both b and c
- _____ 5. _____ is required for coagulation, and higher current density is better for cutting tissue.
a. No current density
b. Medium-current density
c. Alternating current density
d. Low-current density
- _____ 6. Never switch off or disable the _____.
a. ESU monitor alarm
b. ESU spray mode
c. ESU blend mode
d. ESU cutting mode
- _____ 7. When using the ESU, do not place the dispersive electrode over _____.
a. implants
b. scars
c. bony protuberances
d. all of the above
- _____ 8. An electrode tip that has greater surface area and is excellent for coagulation and fulguration is called a _____.
a. flat blade
b. ball tip
c. needle point
d. loop
- _____ 9. The thermal effects of the ESU and the _____ are used to cut and coagulate tissue.
a. dispersive electrode
b. foot pedal

- c. active electrode
 - d. Teflon-coated flat blade
- ___ 10. The flow of electricity is called ____.
- a. voltage
 - b. power
 - c. ampere
 - d. current
- ___ 11. Patients and staff alike are involved in serious electrosurgical accidents each year. Whose responsibility is it to seek out information and be able to safely use equipment in the surgical setting?
- a. the laser safety officer
 - b. the circulator
 - c. the licensed personnel
 - d. all personnel
- ___ 12. A ____ should be designated to monitor and enforce laser standards and precautions.
- a. licensed staff member
 - b. laser safety officer
 - c. committee
 - d. patient advocate
- ___ 13. All personnel entering a room in which laser is in use must ____.
- a. wear the appropriate eye protection
 - b. sign the laser log
 - c. wear a lead apron
 - d. both b and c
- ___ 14. Protection of the patient during laser surgery would include ____.
- a. wet towels
 - b. protective eyewear
 - c. matte-finish metal airways
 - d. all of the above
- ___ 15. The ____ factor determines the degree of thermal damage from the laser.
- a. sensitivity of the irradiated tissue
 - b. amount of tissue affected
 - c. length of time tissue is exposed
 - d. all of the above