

Perioperative Services Competency Assessment - Vanderbilt University Medical Center

Attire, Surgical	Interpretation	Rationale
A. Demonstrates proper surgical attire.	<ol style="list-style-type: none"> 1. Adheres to dress code policy. 2. All staff may wear short sleeved t-shirt under scrubs. 3. All long sleeve shirts and high lint fabrics worn by non scrubbed staff must be covered by a clean hospital provided scrub jacket in the operating room. 4. Only hospital provided blue scrubs and scrub jackets may be worn in the operating room 5. Hospital provided scrubs and scrub jackets must be laundered daily. 6. Must wear closed toe shoes or cover vented shoes with shoe covers. 7. ID badge should be worn above waist. 8. Personal scrub jackets or lab coats must be worn when leaving the unit. 9. No home laundering of scrub attire is permitted. 	<ol style="list-style-type: none"> 1. Vanderbilt Policy - Dress Code in the Operating Room 2. Scrub clothing should cover under garments. 3. Low lint materials reduce risk of cross-contamination. 4. Reduces # of outside microorganisms being brought into the OR, thereby reducing patient risk for developing a Surgical Site Infection (SSI) 5. Scrub attire worn should be laundered by Vanderbilt Hospital laundry facility for use within the perioperative setting. 6. Closed toe shoes help prevent injuries to the foot, shoe covers provide a fluid resistant barrier. 7. ID badges must not interfere with patient care. 8. Protect scrub attire from soiling. 9. Home water temperatures and dryer temperatures may not be as hot as commercial laundering facilities, to kill all microbes harbored on clothing.
B. Verbalizes when to change scrubs & cover ups.	<ol style="list-style-type: none"> 1. Visually soiled or wet. 	<ol style="list-style-type: none"> 1. Reduces potential for cross infection & protects personnel from prolonged exposure to potentially harmful bacteria.
C. Demonstrates donning, wearing and disposal of head covers	<ol style="list-style-type: none"> 1. All head, facial hair including sideburns and necklines must be covered by disposable hats / hoods. 2. Reusable hats / hoods should be completely covered by a disposable hat in semi-restricted and restricted areas of the operative suite. 3. Disposable hats / hoods should be discarded after use, when leaving the perioperative area, and when become visibly soiled. 	<ol style="list-style-type: none"> 1. Hair covers eliminate the possibility of hair or dandruff being shed onto the scrub clothing 2. Hair collects bacteria and shedding of hair has been shown to affect surgical wound infection. 3. Hair collects bacteria and shedding of hair has been shown to affect surgical wound infection
D. Demonstrates correct wearing and disposal of surgical mask.	<ol style="list-style-type: none"> 1. Nose and mouth covered with no venting. 2. Remove mask after each use or when soiled. 3. Remove mask by handling ties only. 4. Remove mask when leaving the perioperative suite. 	<ol style="list-style-type: none"> 1. Masks contain and filter droplet microorganisms.
E. Demonstrates proper use of gloves	<ol style="list-style-type: none"> 1. Sterile gloves when performing a sterile procedure. 2. Non-sterile gloves when performing other tasks. 3. Change gloves and wash hands between tasks. 4. Fingernails are kept clean, well-cared for, and no longer than ¼ inch from fingertip in length. No artificial fingernails for those providing direct patient care. 	<ol style="list-style-type: none"> 1. Gloves are worn to reduce gross contamination of the hands. 4. Artificial fingernails harbor microorganisms and fungal growth occurs.
F. Demonstrates proper use of eyewear	<ol style="list-style-type: none"> 1. Eyewear worn when activities place personnel at risk of splashing or spraying of blood or body fluids. 	<ol style="list-style-type: none"> 1. Reduces the incidence of contamination of mucous membranes.
2. Demonstrates proper use of additional protective attire	<ol style="list-style-type: none"> 1. Additional PPE worn when exposed to potentially infectious agents or radiation. 2. Liquid resistant aprons, gowns, shoe covers, lead aprons 	<ol style="list-style-type: none"> 1. Reduces the incidence of contamination of mucous membranes of the mouth, nose, and eyes.

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Counts, Surgical	Interpretation	Rationale
A. Verbalizes what surgical items should be counted throughout the operative case.	<ol style="list-style-type: none"> 1. Sponges (including ones used in preps). 2. Sharps. 3. Instruments when wound size is large enough to retain an instrument or a cavity is entered. 4. Miscellaneous items as identified in Counts, Sharps, Sponges and Instruments policy. 	<ol style="list-style-type: none"> 1. Prevent injury as a result of a retained foreign body. 2. Vanderbilt Policy – Counts, Sharps, Sponges, and Instruments.
B. Describes when surgical items should be counted.	<ol style="list-style-type: none"> 1. Before incision to establish a baseline. 2. Before closure of cavity within a cavity. 3. As wound closure begins. 4. At skin closure or end of procedure. 5. At the time of permanent relief of either the scrub person or circulating nurse. 	<ol style="list-style-type: none"> 1. Accurately accounting for sponges, needles and instruments if indicated, during a surgical procedure is a primary responsibility of the perioperative nurse and constitutes a proactive injury-prevention strategy. 2. Initial counts provide a baseline for subsequent counts. 3. Accounting for and disposing of all items at end of the procedure helps avoid potential incorrect counts on subsequent procedures.
C. Demonstrates how items should be counted.	<ol style="list-style-type: none"> 1. All items should be counted audibly and concurrently viewed during the count procedure by the scrub and circulator (initial, relief, first final and final counts). 2. Sponges should have tape broken, be separated and viewed by scrub and circulator. 3. Counts should be performed in the same sequence each time. Begin at surgical site; proceed to the mayo stand, back table and off field items. 4. Used sponges are separated, counted audibly and viewed by both the scrub person and circulator. Pocketed bag system may be used for counting used sponges. 5. The final instrument count cannot be considered complete until those instruments used in closing the wound (e.g. malleable retractor, needle holders, scissors, towel clips) are removed from the wound and surgical field and given to the scrub person for final counting with the circulator. Patient will not leave the operating room until all counts are finalized. 6. All sponges used in a body orifice for packing are accounted for before count is finalized. 	<ol style="list-style-type: none"> 1. Reduces the risk for inaccurate counts. 2. Separating sponges help determine whether a sponge has been added or deleted from the prepackaged sterilized package. 3. Assists in achieving accuracy, efficiency, and continuity among perioperative team members.
D. Demonstrates / verbalizes how to handle an incorrect number of sponges or needles in a pack.	<ol style="list-style-type: none"> 1. Pack should be handed off of sterile field to circulator. 2. Circulator should place in a clear bag, date the bag, and store it in the room until final counts are taken. 3. Packages containing an incorrect number are not included in surgical counts. 	<ol style="list-style-type: none"> 1. Reduces confusion as to what happened to the pack containing an incorrect number.
E. Demonstrates / verbalize how to handle broken sharps and instruments or disassembled instruments.	<ol style="list-style-type: none"> 1. Broken sharps and instruments must be accounted for in their entirety. 2. Ensure all parts of each instruments are accounted for in their entirety. 	<ol style="list-style-type: none"> 1. Helps prevent unintentional retention of foreign bodies in the patient.
F. Verbalizes how to care for patients with packed cavities.	<ol style="list-style-type: none"> 1. When the wound is deliberately left open and packed, the sponge count will be considered incorrect with each return visit to the operating room. 2. An x-ray will be taken, read and documented, when the wound is considered closed. 3. Complete all documentation (eStar/Veritas if x-ray is taken). 4. Wounds will be considered closed when allowed to heal by granulation and/or a skin graft, when the fascia is closed, or when Vicryl mesh is used for final closure. 	<ol style="list-style-type: none"> 1. Packed wounds automatically have an incorrect count due to the presence of retained sponges upon arrival to the OR. 2. The final x-ray clears the surgical wound retained foreign bodies.

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<p>G. Identify and manage high risk patient groups for retention of foreign body.</p>	<p>High risk patients include:</p> <ol style="list-style-type: none"> 1. All level 1 trauma cases. 2. When there is an unexpected change in procedure. 3. When there are one or more specialty surgical teams and/or service lines that are performing different unrelated procedures simultaneously in one or more body cavities. 4. When patient is morbidly obese; Body Mass Index (BMI) is equal to or greater than 40. 	<ol style="list-style-type: none"> 1. When a cavity is entered (i.e. body cavities include: thoracic cavity, pelvic cavity, abdominal cavity, retroperitoneal space, and mediastinal space), each patient is assessed by the surgical team for risk factors that may increase the potential for a retained surgical item (RSI). 2. If one or more risks factors for a retained surgical item are identified and surgical wound requires closure, an intra-operative x-ray is taken of the entire surgical area/cavity. 3. If there is any level of concern for a potential retained surgical item in any surgical case, by any member of the surgical team, an x-ray should be obtained.
<p>H. Demonstrates / verbalize procedure for intraoperative x-rays for incorrect surgical count or high-risk patients.</p>	<ol style="list-style-type: none"> 1. Recount. 2. Notify attending surgeon, for re-exploration of wound for (possible) foreign body removal. 3. Search trash, linen, floors, all areas of the operating room. 4. If unresolved, call for an x-ray and state what item is missing. 5. If more than one cavity is entered, images of all cavities are required. 6. Digital image(s) are developed and sent to IMPAX. 7. Notify ED senior radiologist on duty to read the x-ray and communicate to attending surgeon within 30 minutes. Sign final report before patient is discharged from hospital with exception of C-arm images. 8. Leave the patient anesthetized and draped until x-ray is read and wound is determined to be free of foreign bodies. 9. For off campus locations, where an attending radiologist is not available, the attending surgeon/proceduralist will review the x-ray. 10. Complete Veritas report documenting the x-ray findings. 11. Document incorrect count and time x-ray was taken in eStar. 	<ol style="list-style-type: none"> 1. Verify the incorrect count. 2. Attending surgeon must order x-ray to rule out foreign body. 3. X-ray must include complete surgical site to verify all surgical cavity is free from foreign body. 4. The patient remains anesthetized in case foreign body is retained for ease in removal. 5. Provides record of care administered and the outcomes of care delivered.

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Sterile Draping	Interpretation	Rationale
A. Demonstrates drape preparation	<ol style="list-style-type: none"> 1. Ensure appropriate towels drapes are available and open. 2. Stack in order of use from the top down. 	<ol style="list-style-type: none"> 1. Allows for easier transfer to surgeon. 2. Reduces fanning of linen.
B. Demonstrates handing drapes	<ol style="list-style-type: none"> 1. Hand sterile towels to surgeon for placement. 2. Present drape to surgeon with proper orientation (head, foot, etc.). 3. Do not pass towels or drapes over undraped patient. 4. Watches gown in relation to non-sterile items and persons in room to prevent self-contamination. 	<ol style="list-style-type: none"> 1. Steps to prevent contamination of drapes and scrubbed personnel.
C. Demonstrates ability to drape patient without contamination.	<ol style="list-style-type: none"> 1. Remain a safe distance from OR table to prevent self-contamination. 2. Observes for items above the OR table that can cause contamination. 3. Towel should be cuffed over gloved hands before placement. 4. Holds drapes folded until directly over the area to be draped. 5. Small drapes may be opened before placing, large drapes should be placed in position and unfolded. 6. Drapes should be placed precisely where they are intended to go, and not be moved after being placed on the patient. 7. Contaminated drapes should be removed by the circulator and discarded. 8. Drapes should be cuffed over gloved hands before moving to head and foot areas of patient. 9. Hands are not allowed below waist level at any time. 10. Any part of a drape the falls below waist level is not touched again. 	<ol style="list-style-type: none"> 1. Any contamination offers three responses: ignore, discard and replace or cover. Ignoring is only allowed in the most extreme emergencies.

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ESU Safety	Interpretation	Rationale
A. Demonstrate ability for use of ESU generator use.	<ol style="list-style-type: none"> Inspect electrical cord. Plug unit into wall. Activate unit to complete self-test. Verify alarms are audible. Obtain ESU supplies needed for surgical procedure. Cover foot pedal with plastic bag if needed. Do not store liquids on top of ESU. Use of adaptors will be approved by manufacturer. 	<ol style="list-style-type: none"> Basic electrical safety. ESU completes self-test to verify proper working order. Alerts staff if ESU is inadvertently activated during use. Preparation for surgical procedure. Prevents fluid from interfering with ESU or failure. Ensures ESU safety features are not compromised.
B Demonstrate ESU Mega Soft Reusable Patient Return Electrode Pad or dispersive electrode site (pad) placement.	<p>*If using the Megadyne Mega Soft Reusable Patient Return Electrode pad, place on bed beneath sheet, (use placement guide printed on pad), make sure cable is attached to ESU generator and move on to step C, otherwise:</p> <ol style="list-style-type: none"> Inspect skin before pad placement. Do not cut or alter pad. Place pad over muscle mass. Avoid pad placement in the following areas: <ol style="list-style-type: none"> Hairy surfaces Bony prominences Over scars Over implants Areas distal to tourniquets Place after positioning patient. Ensure pad maintains uniform body contact. 	<ol style="list-style-type: none"> Ensures proper functioning of dispersive pad. Interferes with pad function. May cause burns to patient skin. Prevent skin injury. <p>Ethicon Megadyne Mega Soft Reusable Patient Return Electrode</p>
C. Demonstrate safe use of active electrode.	<ol style="list-style-type: none"> Ensure cord is not knotted or kinked. Store active electrode (monopolar or bipolar) in holster provided by manufacturer when not in use. Remove eschar during procedure or use Teflon coated tips. Use ESU at lowest effective setting. Verify ESU settings with surgeon before use. Do not use in the presence of flammable agents, including vapors. Do not use in presence of intestinal gas. Use with caution in head and neck cases. 	<ol style="list-style-type: none"> Electricity can leak from active electrode cord causing ignition of surgical drapes. Accidental activation of active electrode can cause patient injury or ignition of surgical drapes. Eschar build up increases resistance requiring higher power settings. Ignition of flammable substances can cause fires and patient injury. Intestinal gas is highly flammable. Oxygen enriched environment and combustible anesthetic gases can ignite from a spark of the active electrode.
D. Verbalize special precautions for use of ESU if patient has pacemaker or internal defibrillator.	<ol style="list-style-type: none"> Verify patient clearance by cardiologist or surgical plan before usage of ESU. Determine if a pacemaker programmer is needed to place in asynchronous mode. Deactivate ICD before use of monopolar. Other implantable devices such as stimulators and pumps use bipolar cautery. 	<ol style="list-style-type: none"> ESU usage can interfere with pacemaker function. Have defibrillator available. Verify functioning of all devices post operatively.
E. Verbalize bipolar active electrode and return electrode.	<ol style="list-style-type: none"> Current runs from one pole of the instrument to the other (forceps & scissors) allowing for precise hemostasis at surgical site without stimulation or spread of current to other parts of the body. 	<ol style="list-style-type: none"> No need for dispersive pad.
F. Verbalize method for retaining any supplies/ESU if adverse event occurs.	<ol style="list-style-type: none"> Notify charge nurse. Retain all accessories/electrodes during procedure. Remove ESU from use. Fill out a Veritas report. 	<ol style="list-style-type: none"> Allows for investigation into adverse advent.
G. Verbalize special precautions during endoscopic procedures.	<ol style="list-style-type: none"> Risk of injuries cause by: <ol style="list-style-type: none"> Direct coupling of current Insulation failure Capacitive coupling Non-flammable insufflation gas 	<ol style="list-style-type: none"> Causes necrosis of underlying tissue causing patient injury. Alternate way for current leave active electrode causing patient injury. Undetected burns causing patient injury. Patient safety.

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H. Demonstrate documentation of ESU usage.	<ol style="list-style-type: none"> 1. ESU serial number. 2. Dispersive pad placement and serial number of pad. 3. Skin condition before and after usage. 	<ol style="list-style-type: none"> 1. Allows for retrieval information for investigation of adverse events.
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Gowning and Gloving	Interpretation	Rationale
A. Demonstrates gowning technique.	<ol style="list-style-type: none"> 1. Before scrubbing, opens gown and gloves on separate table from back table. 2. Gloves may be carefully tossed onto sterile gown. 3. Scrub per current Vanderbilt guidelines. 4. With one hand, pick up drying towel and step away from the sterile field. Bend slightly at the waist so the towel will not touch unsterile scrub clothes as it unfolds lengthwise. 5. Dry hands using opposite ends of the towel and discard. 6. With one hand grasp the gown and lift straight up and away from the sterile field being careful not to touch the edges of the wrapper. 7. Step back while continuing to face the sterile field. Hold the gown away from the body and allow it to tumble open full length, keeping the inside of the gown toward the body. 8. Do not touch the outside of the gown with bare hands. 9. Place hands into armholes and guide each arm through the sleeves by raising and spreading the arms. 10. Keep hands inside the cuff of the gown. 11. Allow circulator to pull the gown over the shoulders and tie in the back. 	<ol style="list-style-type: none"> 1. Reduce the opportunity for contamination. 2. Do not return over an area that has been dried to reduce the opportunity for re-growth. 3. Sterile items and areas should always be in sight. 4. This is the sterile part of the gown. 5. Gown is sterile in the front nipples to waist or table level.
B. Demonstrates closed glove method.	<ol style="list-style-type: none"> 1. Keeping hands within the cuff of the gown, fold back the glove wrapper to expose the gloves, being careful not to touch the wrapper edges. 2. Pick up the first glove from the open package and place thumb towards the palm and fingers pointing toward the elbow. 3. Grasping the glove on both sides through the sleeves of the gown, stretch to create an opening and pull glove over the hand. 4. Repeat the process with the other glove and hand. 5. Double glove with second pair. 	<ol style="list-style-type: none"> 1. The closed glove technique offers the maximum level of aseptic assurance and is the AORN recommended method for self-gloving following the surgical scrub and gowning. 2. Double gloving is required.
C. Demonstrates ability to wrap around gown back without contamination.	<ol style="list-style-type: none"> 1. Present the disposable strip to a surgical team member. 2. In a controlled manner, slowly rotate and tie gown. 	<ol style="list-style-type: none"> 1. Completes the tying of the gown.
D. Demonstrate gowning another person.	<ol style="list-style-type: none"> 1. Gowned and gloved person will present towel to person who already scrubbed to dry hands. 2. Lift the gown at the neck and let it unfold. 3. Allow inside of gown to be facing person to be gowned. 4. Make a cuff at the neck. 5. Hold gown until hands and forearms are in sleeves of gown. 6. Circulator then assists with tying into the gown. 7. See C. 	<ol style="list-style-type: none"> 1. This method allows for maximum protection from contamination.
E. Demonstrate gloving another person.	<ol style="list-style-type: none"> 1. Open glove and turn palm of glove toward other individual's hands. 2. Stretch the cuff to open the glove by cuffing the glove's cuff over your fingers and extending them. 3. Exert slight upward pressure on the cuff as the gowned individual slips the hand well into the glove. 4. Bring the cuff over the knit cuffs of the gown as the gowned individual slips the hand well into the glove. 5. Repeat for the other hand. The other person may assist by stretching the cuff. 6. Double glove with second pair. 	<ol style="list-style-type: none"> 1. Allows for ease of other person to don glove. 2. Prevents contamination of sterile person. 3. Double gloving is required.
F. Demonstrate changing gloves.	<ol style="list-style-type: none"> 1. Have circulator remove glove by grasping glove at palm wearing non-sterile gloves, leaving hand exposed. 2. Scrub re-gloves using the closed method. 3. Scrub gloves others using open method. 4. Double glove with second pair. 	<ol style="list-style-type: none"> 1. Reduces risk of contamination. 4. Double gloving is required.

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G. Demonstrate changing gowns and gloves.	<ol style="list-style-type: none"> 1. Circulator removes gown first, pulling gown over the cuffs, leaving gloves on. 2. Circulator removes each glove, using care not to touch bare skin. 	<ol style="list-style-type: none"> 1. Reduces risk of contamination. 2. Person will not have to rescrub.
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Standard Precautions	Interpretation	Rationale
A. Verbalizes appropriate use of standard precautions when caring for all patients in the perioperative setting.	<ol style="list-style-type: none"> 1. Standard precautions apply to exposure or potential for exposure to the following: <ol style="list-style-type: none"> a. Blood and all body fluids, secretions, and excretions (except perspiration) b. Non-intact skin c. Mucous membranes 2. Risk of exposure to potentially infectious agents is minimized by using personal protective equipment (PPE), work practices, and engineering controls. 3. Uses proper technique for: <ol style="list-style-type: none"> a. Handling linen b. Safety devices (IV cannulas/needles, transfer devices) c. Disposing of sharps d. Disposal of infectious and regulated medical waste e. Storing clean and sterile supplies f. Collecting and transporting lab specimens g. Managing blood spills 4. Describes procedures for managing a needle stick or blood borne pathogen exposure per Vanderbilt Policy (listed in rational). 5. Demonstrates proper cleaning and decontamination of medical equipment using appropriate cleaning agents. 	<ol style="list-style-type: none"> 1. Prevents transmission of diseases to patients and/or staff. 2. Vanderbilt Policy – Bloodborne Pathogens Exposure Control Plan
B. Demonstrates appropriate methods of performing hand hygiene.	<ol style="list-style-type: none"> 1. Hand hygiene should be performed at the following times: <ol style="list-style-type: none"> a. Beginning of shift b. Before and after patient contact c. After removing gloves d. Before and after eating e. Before and after using the restroom f. Anytime there is a possibility of contact with blood or body fluids g. Anytime hands are soiled 	<ol style="list-style-type: none"> 1. Prevents transmission of diseases to patients and/or staff.
C. Verbalizes appropriate use of protective barriers to reduce risk of skin and mucous membrane exposure to potentially infectious materials.	<ol style="list-style-type: none"> 1. Gloves should be worn when touching blood or body fluids or when handling items contaminated with blood or body fluids. 2. Double-gloving is recommended during invasive procedures. 3. Change gloves between patients and/or procedures. 4. Masks and eye protection or a face shield should be worn to protect mucous membranes of the eyes, nose, and mouth from splashes and sprays. 5. Gowns should be worn to protect skin and/or prevent soiling of clothing during procedures and other patient care activities when contact with blood or body fluid is likely. 6. Gowns should be worn for direct patient contact if the patient has uncontained secretions or excretions. 7. Do not reuse gowns, even for repeated contact with the same patient. 	<ol style="list-style-type: none"> 1. Minimizes risk of cross contamination among staff, patients, and their environment
D. Verbalizes work practices that help to minimize risk of exposure to pathogens.	<ol style="list-style-type: none"> 1. The following activities are prohibited in the patient care area: <ol style="list-style-type: none"> a. Eating b. Drinking c. Smoking d. Applying cosmetics or lip balm e. Handling contact lenses 2. Food and drink should not be stored where potential exposure to blood or other infectious materials could occur. 3. Food and drink should not be present in the restricted and semi-restricted areas of the surgical suite. 4. All equipment and environmental surfaces should be cleaned and decontaminated between procedures. 	<ol style="list-style-type: none"> 1. Minimizes risk of cross contamination among staff, patients, and their environment.

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Isolation Protocols	Interpretation	Rationale
A. Verbalizes appropriate measures to implement for patients on Airborne Precautions.	<ol style="list-style-type: none"> 1. Airborne Precautions apply to diseases spread long distances via air currents. Diseases in this category includes but are not limited to: <ol style="list-style-type: none"> a. Pulmonary tuberculosis (TB) b. Measles c. Varicella (chicken pox) d. Bioterrorism agents (e.g. SARS, smallpox) 2. Post the blue "Airborne Precautions" sign on the OR door. Signs can be found in the Isolation Cart. 3. All staff must wear N-95 respirators when entering the OR. 4. Remove the N-95 respirator upon exiting the OR and perform hand hygiene. 5. All staff must undergo N-95 fit testing on an annual basis. 6. Airborne Precautions cases should be scheduled at the end of the surgical day. 7. Obtain HEPA filter to run after procedure if not performed in negative pressure room. 	<ol style="list-style-type: none"> 1. Reduces risk of exposure to potentially infectious materials.
B. Verbalizes appropriate measures to implement for patients on Droplet Precautions.	<ol style="list-style-type: none"> 1. Droplet precautions apply to diseases spread via close contact with respiratory secretions. Diseases in this category include but are not limited to: <ol style="list-style-type: none"> a. Influenza b. Pertussis c. Mumps d. Meningitis e. Fifth disease 2. Post the green "Droplet Precautions" sign on the OR door. Signs can be found in the Isolation Cart. 3. Wear a surgical mask when entering the OR. 4. Wear gloves when handling items contaminated with respiratory secretions. 5. Perform hand hygiene upon exiting the OR. 	<ol style="list-style-type: none"> 1. Reduces risk of exposure to potentially infectious materials.
C. Verbalizes appropriate measures to implement for patients on Contact Precautions.	<ol style="list-style-type: none"> 1. Contact precautions apply to diseases transmitted by direct contact with the patient's skin and/or infections substances, as well as through indirect contact with the patient's environment. Diseases in this category include but are not limited to: <ol style="list-style-type: none"> a. Methicillin Resistant <i>Staphylococcus aureus</i> (MRSA) b. Vancomycin Resistant <i>Enterococcus</i> (VRE) c. Clostridium difficile d. Congenital rubella e. Lice f. Scabies g. Resistant organisms such as <i>Acinetobacter baumannii</i> h. All patients with burns and/or large wounds 2. Post the red "Contact Precautions" sign on the OR door. Signs can be found in the Isolation Cart. 3. Wear gown and gloves upon entry into the OR, even if not in direct contact with the patient. 4. Remove PPEs and perform hand hygiene upon exiting the OR if not involved in patient transport. 	<ol style="list-style-type: none"> 1. Reduces risk of exposure to potentially infectious materials.
D. Verbalizes responsibilities of the circulating nurse in preparing for and Isolation Precautions case.	<ol style="list-style-type: none"> 1. Obtains Isolation Cart which remains outside the OR in the corridor. 2. Posts appropriate isolation precautions signs on OR doors. 3. Ensures all supplies needed for the case are available. 4. Removes all unnecessary equipment from the OR before the case begins. 5. Closes all cabinets (cannot be opened once patient enters the OR). 6. Ensures all staff involved in cases don appropriate PPE before patient enters OR. 7. Ensures all staff removes PPE and perform hand hygiene upon entry and exiting the OR. 8. Notify PACU 30 minute prior to patient transfer if patient is on any isolation precautions. 	<ol style="list-style-type: none"> 1. Reduces risk of exposure to potentially infectious materials.
E. Verbalizes protocol for managing patients with known or suspected Transmissible Spongiform Encephalopathies (TSE), including Creutzfeldt-Jakob Disease (CJD).	<ol style="list-style-type: none"> 1. Notify neurosurgery manager/charge nurse and Infection Control and Prevention for all suspected cases. 2. Use disposable instruments on all brain biopsies for suspected spongiform encephalopathies. 3. Use single-use liquid repellent sterile OR gowns, gloves, masks, face shields or goggles, linens, and covers. 4. Cover all non-disposable equipment. 5. Maintain one-way flow of instruments. 6. Mark all specimens with a biohazard label and a "Neuro Precautions" label, and notify departments receiving the specimens. 	<ol style="list-style-type: none"> 1. Vanderbilt Policy - Creutzfeldt-Jakob Disease (CJD) and other Transmissible Spongiform Encephalopathy Disease Precautions

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Laser Safety	Interpretation	Rationale
A. Describe basic safety using lasers in the operating room.	<ol style="list-style-type: none"> 1. Education is required for both physicians and staff for safe laser operation. <ol style="list-style-type: none"> a. Surgeons complete: <ol style="list-style-type: none"> 1. Didactic lecture on both laser and clinical applications 2. Hands-on experience with laboratory models 3. Preceptorship with experienced operators 4. Residency training in University Hospitals b. Staff complete: <ol style="list-style-type: none"> 1. Didactic lecture on basic laser physics and laser safety 2. Operational training with return demonstration and validation. 2. Warning signs should be placed on all doors leading to the OR. 3. Always place eye protection on all doors leading into the operating room. 4. The nominal hazard zone is considered to be the procedure room 5. Before the procedure, laser will be test fired (COS) and/or calibrated prior to patient entering the OR. If the laser does not function properly: <ol style="list-style-type: none"> a. Obtain another laser of the same wavelength. b. Notify attending physician if no other laser is available. 6. Keep floor dry around the laser. 7. Avoid placing liquids on top of the laser. 	<ol style="list-style-type: none"> 1. Education is required for safe laser operation. 2. A nominal hazard zone should be identified to prevent unintentional exposure to the laser beam. 3. Warning signs should be placed conspicuously to alert bystanders of potential hazards. 4. Lasers are high-voltage equipment that should be protected against short circuiting associated with spillage or splatter.
B. Describe injuries to eyes and prevention measures.	<ol style="list-style-type: none"> 1. All safety eyewear must be wavelength specific for each laser regardless of color. 2. For both open and closed procedures, appropriate eye protection is required for all viewers within the nominal hazard zone. 3. Eye protection for the patient includes: <ol style="list-style-type: none"> a. When anesthetized CO2 Laser, eyes are taped and lubricated b. Saline saturated eye pads applied to eyes and covered by aluminum foil if the wavelength specific goggles interfere with surgery. c. Awake patients may wear wavelength specific laser goggles 4. All wavelength lasers: <ol style="list-style-type: none"> a. Require wavelength specific glasses/goggles with side guards b. Surgeon wears glasses or uses special filter lens on all scopes c. All wavelength lasers require all viewing windows be covered/closed except for the CO2. 	<ol style="list-style-type: none"> 1. Unprotected eyes can become injured in the cornea and retina. 2. Scattered, diffuse, and reflected laser beams in addition to direct exposure from misdirected and damaged fibers can cause eye injuries.
C. Describe preventive measures for skin injuries.	<ol style="list-style-type: none"> 1. Laser light can be reflected off any shiny surface causing a variety of skin injuries. Methods to prevent light reflection include: <ol style="list-style-type: none"> a. Use ebonized or dull finished instruments. b. Modified laryngoscopes and bronchoscopes. c. Special micro laryngeal instruments. 	<ol style="list-style-type: none"> 1. Light reflection can result in injuries. 2. Anodized, dull, non-reflective, or matte-finished instruments decrease the reflectivity of laser beams.
D. Describe preventive measures for risks associated with laser plume.	<ol style="list-style-type: none"> 1. Lasers produce plume (smoke) containing hazardous components which may cause: <ol style="list-style-type: none"> a. Eye, nose and throat irritation b. Nausea, vomiting, and flu-like symptoms. 2. Staff should wear PPEs, including special high filtering masks. 3. Adequate Plume (Smoke) Evacuation includes: <ol style="list-style-type: none"> c. Using a smoke evacuator with disposable filter and tubing 	<ol style="list-style-type: none"> 1. HPV has been isolated in CO2 plume. 2. Personnel working in the laser environment should avoid exposure to smoke plume generated during laser surgery.
E. Describe fire prevention strategies specific to laser use.	<ol style="list-style-type: none"> 1. Fire prevention with Laser use includes: <ol style="list-style-type: none"> a. Airway b. Non-combustible endotracheal tubes c. Cuff is inflated with methylene blue. d. Cottonoids are packed around cuff so if laser light punctures cuff, the methylene blue leaks onto the cottonoids. e. Anesthesia may use jet ventilation as an alternative to intubation. 2. Airway Fire protocol (when ignition occurs): <ol style="list-style-type: none"> a. Disconnect oxygen supply b. Flood area with water or saline c. Immediately extubate the patient d. Secure a new airway 3. Nursing considerations for Fire Prevention: <ol style="list-style-type: none"> a. Always use non-flammable prep agents b. Always keep a bowl/syringe of sterile saline/water on back table to extinguish a fire c. Always use moist towels to drape surgical area for open procedures 	<ol style="list-style-type: none"> 1. Standard endotracheal tubes are combustible and should not be used. 2. Fire is one of the most significant hazards of laser use.

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<p>F. Describe safety considerations during laser operation.</p>	<ol style="list-style-type: none"> 1. Surgeon directing the laser should be in control of the foot pedal. 2. Place laser on stand-by each time the surgeon takes his/her foot off the foot pedal. 3. Check all electrical components of laser before plugging unit into wall. 4. Troubleshooting includes: <ol style="list-style-type: none"> a. Check Power Source b. Check all connections c. Turn laser off and back on d. Call charge nurse of the service line e. Call Laser Safety Officer- Margaret Haecherl. 	<ol style="list-style-type: none"> 1. Attention to proper placement of the foot switch and use of the standby switch can reduce unintended activation of the laser beam and potential injury to the patient, operator, and/or bystanders.
<p>G. Describe Laser Documentation.</p>	<ol style="list-style-type: none"> 1. Documentation includes: <ol style="list-style-type: none"> a. Which laser is used. b. Safety measures taken. c. Time laser is used. d. Document in OR nursing record (eStar) and Laser Log if unit requires. 	<ol style="list-style-type: none"> 1. Documentation provides a record of type of laser used and safety measures taken.

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Medication Safety	Interpretation	Rationale
A. Verbalizes the five rights of medication administration.	<ol style="list-style-type: none"> 1. Right patient 2. Right medication 3. Right dose 4. Right time 5. Right route 	<ol style="list-style-type: none"> 1. Patient safety. 2. Policy – Medication Administration
B. Verbalizes process for confirming verbal medication orders.	<ol style="list-style-type: none"> 1. Repeat the entire order using digit-by-digit technique (five- zero instead of fifty). 2. Document the order as soon as possible in the patient's chart. 3. Verbalizes understanding of the importance of miss and near miss medication errors. 4. Identifies, reports and documents adverse drug reactions. 	<ol style="list-style-type: none"> 1. Reduces the chance for error.
C. Verbalizes process for verifying that the correct medication has been selected for use.	<ol style="list-style-type: none"> 1. Medication labels should be checked 3 times to verify that the correct medication (including dose and concentration) has been selected for the correct patient. Check the label at the following times: <ol style="list-style-type: none"> a. Upon procurement of the medication from Omnicell and/or pharmacy b. When preparing and drawing the medication into a syringe or other device for administration c. When placing the medication on the sterile field or transferring it to the anesthesia care provider for administration 	<ol style="list-style-type: none"> 1. Patient safety.
D. Verbalizes medication labeling process and all information that must be included on medications and solutions placed onto the sterile field.	<ol style="list-style-type: none"> 1. All labeling of items removed from their original container/package occurs at the time the medication is being prepared. 2. Label one medication at a time. 3. All labels are verified both verbally and visually by two qualified individuals when the person preparing the medication is not the person administering the medication. 4. Upon shift change or break relief, all medications/solutions and their labels are reviewed by both entering and exiting staff. 5. Attaching the original container (vial/amp, etc.) to the final container is unacceptable. 6. Any unlabeled or partially labeled medication or solution is immediately discarded. 7. All medications and solutions placed onto the sterile field must be labeled with the following information: <ol style="list-style-type: none"> a. Drug name b. Drug concentration 8. Medications must be discarded at the completion of the procedure. All original medication/solution containers must remain available until the conclusion of the procedure. 	<ol style="list-style-type: none"> 1. Patient safety.
E. Verbalizes process for delivering medications to the sterile field in an aseptic manner.	<ol style="list-style-type: none"> 1. Confirm all medication with the surgeon before delivery to the sterile field. 2. Actively communicate the medication name, strength, dosage, and expiration date as the medication is passed to the sterile field. 3. Medication should be verified concurrently by the circulating nurse and scrub person. 4. Deliver one medication at a time onto the sterile field. 5. Do not remove stoppers from vials for the purpose of pouring medications. 6. Use commercially available sterile transfer devices when possible (e.g., sterile vial spike). 	<ol style="list-style-type: none"> 1. Patient Safety.

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Normothermia	Interpretation	Rationale
A. Verbalizes potential negative outcomes related to perioperative hypothermia.	<ol style="list-style-type: none"> 1. Hypothermia increases the patient's risk of the following: <ol style="list-style-type: none"> a. Adverse cardiac events b. Surgical site infection c. Surgical bleeding d. Patient discomfort e. Longer hospital stay 	<ol style="list-style-type: none"> 1. Patient safety. 2. Policy - Normothermia
B. Verbalizes factors that contribute to perioperative hypothermia.	<ol style="list-style-type: none"> 1. Factors include but are not limited to the following: <ol style="list-style-type: none"> a. Low ambient room temperature b. Patient exposure including cavities c. Use of room temperature irrigation fluids d. Wet linens and surgical drapes 	<ol style="list-style-type: none"> 1. Anesthetized patients lose the ability to generate heat through increased muscle activity or shivering.
C. Verbalizes OR room temperature to maintain normothermia.	<ol style="list-style-type: none"> 1. Set thermostat at 24° C (75°F). 2. May be adjusted during the case if patient core temperature is less than 36°C. 3. The Celsius/Fahrenheit Conversion Calculator can be found in the electronic eStar charting (Pre-Op, Intra-Op and Post Op). 	<ol style="list-style-type: none"> 1. Maintain Normothermia.
D. Verbalizes methods for maintaining normothermia.	<ol style="list-style-type: none"> 1. Apply warm blankets. 2. Patient may wear socks or surgical cap. 3. Monitor patient temperature. 4. Minimize patient exposure during induction and prep. 5. Irrigation fluids are warmed to a maximum of 102°F per fluid warmer. 	<ol style="list-style-type: none"> 1. Preventative measures protect the patient from heat loss due to radiation, conduction, and/or evaporation.
E. Verbalizes use of forced air devices.	<ol style="list-style-type: none"> 1. Use before and during anesthetic induction (set at 40°C). 2. Turn off before prep begins if located near incision site. 3. Turn back on after prepping and draping. 4. Temperature may be adjusted throughout procedure as directed per anesthesia provider. 	<ol style="list-style-type: none"> 1. Maintain Normothermia. 2. Prevent airflow over surgical site.

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Positioning	Interpretation	Rationale
A. Gather appropriate resources for safe and efficient patient positioning.	<ol style="list-style-type: none"> 1. Assemble all positioning aids before induction. 2. Have lifting help available if necessary. 3. Position OR bed and transport vehicle next to each other and locked. 	<ol style="list-style-type: none"> 1. Ensure safe and efficient patient positioning.
B. List & define three risk factors for patient injury associated with positioning.	<ol style="list-style-type: none"> 1. Shearing- tissue layers move on each other causing blood vessels and tissues to stretch, angulate and become damaged, caused by sliding or pulling the patient. 2. Friction- occurs when skin rubs over a rough stationary surface. 3. Pressure- skin is compressed between a hard surface (bed) and bone; blood vessels are narrowed or occluded. Duration of pressure is more important than intensity of pressure. Damage can occur in two hours. 	<ol style="list-style-type: none"> 1. Lift patient to prevent shearing. 2. Protect skin from rough surfaces. 3. Pad all bony prominences to prevent injury.
C. Demonstrate patient placement in the Supine Position.	<ol style="list-style-type: none"> 1. Position placement includes, but is not limited to: <ol style="list-style-type: none"> a. Pillow beneath lower legs b. Pad elbows and wrists c. Pad heels d. Pillow or head positioner under head e. Use footboard for reverse Trendelenburg, pad feet f. Pad perineal post on fracture table g. Roll or wedge under right flank of pregnant or morbidly obese patient 	<ol style="list-style-type: none"> a. Reduce back strain. b. Protect ulnar nerve and support wrist. c. Reduce pressure on patient heel. d. Reduce pressure on back of head. e. Prevent patient from sliding off OR table and reduce pressure on patient feet. f. Reduce pressure on perineum. g. Reduce pressure on vena cava.
D. Demonstrate patient placement in the Lithotomy Position.	<ol style="list-style-type: none"> 1. Position placement includes, but is not limited to: <ol style="list-style-type: none"> 1. Pillow or head positioner under head 2. Pad elbows and wrists 3. Watch fingers/hands when lowering foot of bed 4. Placing patient in stirrups: <ol style="list-style-type: none"> a. One staff person per leg b. Raise/lower simultaneously c. Position stirrups level and equal height d. Pad stirrups, no skin touching metal e. Securely fasten stirrups to bed 	<ol style="list-style-type: none"> 1. Reduce pressure on back of head. 2. Protect ulnar nerve and support wrist. 3. Fingers/hands can be injured if caught in bed mechanism 4. Stirrups: <ol style="list-style-type: none"> a. Avoid back strain or hip dislocation b. Maintain proper body alignment c. Reduce pressure on skin d. Stirrup slippage could cause hip dislocation, muscle, nerve or bone injuries
E. Demonstrate patient placement in the Prone Position.	<ol style="list-style-type: none"> 1. Position placement includes, but is not limited to: <ol style="list-style-type: none"> a. Padded headrest or pillow under head with head turned to side ear flat. b. Chest rolls c. Padding for arms, careful rotation with minimal abduction d. Padding for knees e. Lower legs elevated on pillow(s) f. Females- breasts angled toward sternum g. Males- genitalia not compressed, in proper anatomical alignment. 	<ol style="list-style-type: none"> a. Reduce pressure on face, protects eyes, ear flat to prevent injury. b. Allow for the diaphragm to move freely. c. Prevent shoulder dislocation and brachial plexus injury. Pad elbows and forearm protect ulnar nerve. d. Reduce pressure on knees. e. Elevate toes, prevent from touching the OR table. f. Prevent patient injury. g. Prevent patient injury.
F. Demonstrate patient placement in the Lateral Position.	<ol style="list-style-type: none"> 1. Position placement includes, but is not limited to: <ol style="list-style-type: none"> a. If using beanbag, place on bed prior to moving the patient. b. After induction, four people move patient to side with unaffected side down. c. Pillow under head, ear flat. d. Pillow between legs, bottom leg flexed at knee and hip, top leg straight or slightly flexed. e. Lateral aspect of lower knee padded f. Lower malleolus padded g. Lower arm flexed and resting on padded arm board, elbows, wrists padded and supported. h. Lower shoulder brought slightly forward, small bolster placed slightly posterior to the axilla. i. Upper arm on padded elevated arm board, padded mayo stand, or pillows between arms and secured. 	<ol style="list-style-type: none"> a. Facilitates ease of positioning. b. Prevent patient and staff injury. c. Reduce pressure on head and ear. d. Pad legs add stability to patient. e. Reduce pressure on knee. f. Reduce pressure on foot. g. Prevent ulnar nerve injury. h. Relieve pressure on nerves and vessels along the brachial plexus. i. Facilitate chest expansion.

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Sharps Injury Prevention	Interpretation	Rationale
A. Verbalize when to double glove.	1. Practices double gloving during all invasive surgical procedures.	1. Gloving helps to reduce transfer of bloodborne pathogens if sharps injury occurs.
B. Verbalize safe practice when using knife blades.	<ol style="list-style-type: none"> 1. Uses safety knife handles when handling knife blades. 2. Activates blade sheath before passing knife handle. 3. Establishes and uses neutral zone when passing exposed knife blades. 4. Uses a blade disarmer if removing blade from handle. 	1. Using safe practices when handling knife blades helps prevent sharps injury.
C. Verbalizes safe practices when using suture needles.	<ol style="list-style-type: none"> 1. Uses blunt suture when sewing muscle and fascia. 2. Establishes and uses a neutral zone when passing sharp suture. 3. Uses an instrument to separate needles in needle book when counting. 4. Removes needle from suture before tying. 	1. Using safe practices when handling suture needles help prevents sharps injury.
D. Verbalize safe practices when handling hypodermic needles.	<ol style="list-style-type: none"> 1. Uses neutral zone if passing exposed needle. 2. Places needle and syringe in sharps container immediately after use. 3. Uses one handed method when recapping needle. 4. Uses mechanical device to cover exposed needle. 	1. Using safe practices when handling hypodermic needles help prevent sharps injury.
E. Verbalize additional safe practices when handling sharps.	<ol style="list-style-type: none"> 1. Keep sharps pointed away from self and team members. 2. Give verbal notification when passing sharps. 3. Keeps hands away from surgical site when sharps are in use. 4. Keep track of and account of all sharps. 5. Use neutral zone when passing sharp instruments. 	1. Using safe practices when handling sharps help prevent sharps injury.

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Specimens, Labeling of	Interpretation	Rationale
<p>A. Verbalize correct process for labeling all patient biological products/items.</p>	<ol style="list-style-type: none"> 1. Prior to starting case, ensure that all labels from previous patients have been removed from the OR. 2. Verify all patient labels with: <ol style="list-style-type: none"> a. Full patient name b. Medical record number c. Account number d. Electronic flight board e. VUnetID (Universal ID of the specimen collector) f. Include collection date for specimens going to the Blood Bank g. Specimen bags contain only one patient's specimen per bag 3. After verification that the label contains information for the correct patient, label all biological products/patient items as necessary. 	<ol style="list-style-type: none"> 1. Ensures correct information/label is placed on all patient biological products and items. 2. Policy: Handling of Surgical Specimens
<p>B. Verbalizes process for labeling surgical specimens on the sterile field.</p>	<ol style="list-style-type: none"> 1. Scrub person receives the specimen from the surgeon, confirms how it should be labeled, and places in the appropriate-size container. 	<ol style="list-style-type: none"> 1. Ensures correct information is given to pathologist to obtain diagnosis.
<p>C. Verbalizes process for labeling surgical specimens that have been passed off the sterile field.</p>	<ol style="list-style-type: none"> 1. Circulator verifies information on the label with another staff person (scrub, circulator, or anesthesia provider). The person verifying the information will initial the specimen label. <ol style="list-style-type: none"> a. Circulator verifies label with electronic flight board for correct patient information b. The label placed on the specimen container and the pathology sheet must match the correct name and medical record number of the patient 	<ol style="list-style-type: none"> 1. Ensures correct patient label and information is placed on specimen.

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Sterile Supplies and Instruments, Opening	Interpretation	Rationale
A. Preparation of intraoperative environment.	<ol style="list-style-type: none"> 1. Inspect, damp dust or clean flat surfaces and surgical lights as needed. 	<ol style="list-style-type: none"> 1. Surfaces should be clean and free of any visible potential sources of contamination.
B. Demonstrate ability to establish a sterile back table.	<ol style="list-style-type: none"> 1. Inspect outer plastic covering for holes or tears. 2. Inspect sealed integrity of the pack. 3. Open pack and place in the center of the table. 4. Tear the indicator tape or seal at the fold. 5. Grasp the uppermost fold, open the pack and drape over the table edge. 6. Walk to end of the table, grasp the cuff of the drape and open toward self. 7. Walk to the other end of the table, grasp the cuff of the drape and open toward self. 	<ol style="list-style-type: none"> 1. If the integrity of the pack has been compromised, consider the pack contaminated.
C. Demonstrates ability to open and place envelope-style packages onto the sterile field.	<ol style="list-style-type: none"> 1. Remove outer wrap after checking proper color of chemical indicator tape. 2. Grasp item from bottom with the previously taped fold facing upward and peel down the flap on the back side, repeat on each side, and securing loose ends in the fingers of the hand holding the item itself by working under the item. 3. Stand 12 inches away from sterile field and toss the item onto the back table or sterile ring stand. 4. May place the unwrapped item on the proximal side of the table to you. 5. Items may be transferred to a person who is already scrubbed. 	<ol style="list-style-type: none"> 1. Check for sterilization process. 2. Never reach over a sterile field and shake an item from the package. 3. A non-sterile person should never extend hands or arms over the sterile field for any reason.
D. Demonstrates ability to open wrapped instrument sets in a sterile manner.	<ol style="list-style-type: none"> 1. Circulator inspects outer wrapper for holes, tears, moisture. 2. Open on clean flat surface. 3. Tear indicator tape after verifying color change. 4. Peel back first fold away from body, allowing wrapper to drop over table edge. 5. Repeat for side folds. 6. The last fold should be pulled toward self. 7. Verify chemical integrator. 8. Scrub takes pan. 9. Circulating nurse takes wrapper, holds up to light verifying no holes or tears in wrapper. 10. If there are holes or sterility is not guaranteed, set is not placed on sterile field, scrub changes gloves. 	<ol style="list-style-type: none"> 1. Any wet, torn or perforated wrapper must be considered non-sterile. 2. Items of doubtful sterility must be considered unsterile. 3. The absence of an indicator or one that has not turned color properly, the set is considered unsterile.
E. Demonstrates ability to open sets in instrument cases.	<ol style="list-style-type: none"> 1. Verify filter placement on top of lid. 2. Verify chemical indicators on arrows and load card. 3. Snap arrows and lift latches on ends. 4. Lift lid straight up for 12 inches and step away from the instrument set. 5. Circulator verifies filter placement and removes old filters. 6. Scrub checks internal indicator for exposure to sterilization process. This is a two person verification process. 	<ol style="list-style-type: none"> 1. Sets must be considered unsterile if filters are absent or displaced.
F. Demonstrates ability to open and place peel packs without contamination of sterile field.	<ol style="list-style-type: none"> 1. Check package integrity. 2. Check all chemical indicators. 3. Open by separating edges of wrapper and peeling back. 4. Toss onto sterile field. 	<ol style="list-style-type: none"> 1. If holes or evidence of previous moisture, item is considered contaminated. 2. Indicates exposure to sterilant. 3. The seal and all areas outside the seal are considered non-sterile. 4. Reaching over sterile field with arms allows shedding and fallout of bacteria onto sterile field.
G. Demonstrates ability to maintain sterility of field.	<ol style="list-style-type: none"> 1. Communicates maintenance of sterile field. 2. Assures that sterile field is maintained and monitored constantly. 3. Uses principles of aseptic technique in varying situations and initiates corrective action when breaks in technique occur. 4. If scrubbed: <ol style="list-style-type: none"> a. Sets up field and instruments accurately and in a timely manner. b. Prepares and passes instruments, sharps, and equipment in accordance with policies and procedures. c. Demonstrates competence in surgical instrument identification. 	<ol style="list-style-type: none"> 1. Personnel and observers should be knowledgeable about the procedures involved in developing and maintaining a sterile field.

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	5. Breaks down sterile field at end of case and disposes of trash.	
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Surgical Hand Scrub	Interpretation	Rationale
A. Demonstrates hand / arm readiness for surgical hand scrub.	<ol style="list-style-type: none"> 1. Checks hands and arms for cuts, infections, or inflammation. 2. Checks fingernails for cleanliness, length, nail polish if worn should not be chipped and freshly applied (less than 4 days old), free of acrylic nails, and free of jewelry. 	<ol style="list-style-type: none"> 1. Minor breaks in skin must be covered with biocclusive dressing after scrubbing. 2. Nails should not extend over fingertips greater than ¼ inch. 3. Potential for cross contamination. 4. Available data indicates that nail polish that is obviously chipped or worn longer than four days harbor greater numbers of bacteria.
B. Demonstrates use of PPE.	<ol style="list-style-type: none"> 1. Eye protection in place and cloth hats and hair completely covered / contained with disposal hat. 	<ol style="list-style-type: none"> 3. OSHA regulations.
C. Choose agent.	<ol style="list-style-type: none"> 1. Water based hand scrub or Surgical Hand Antiseptic (Avagard™). 	<ol style="list-style-type: none"> 2. Approved methods at VMC.
D. Demonstrates water based hand scrub (three minutes).	<ol style="list-style-type: none"> 1. Open scrub brush with antimicrobial soap. 2. Wet hands and arms up to the elbows. 3. Clean fingernails with nail stick under running water. 4. Discard nail stick in appropriate waste receptacle. Begin three minute timed scrub. 5. Wet sponge and squeeze to work up lather. 6. Use brush side only on nails/cuticles or areas of visible soil. 7. Wash all four sides of each digit. 8. Wash the back, front, inner, and outer side of the hand. 9. Repeat process on other hand 10. Visualize the forearm from the wrist to 2” above the elbow as three sections, and wash each third. 11. Repeat process on other arm. 12. Discard brush in trash receptacle. 13. Rinse both hands, arms and elbows thoroughly from fingertips to elbows, keeping fingers higher than elbows at all times. 14. Pause with arms over the sink to allow the excess water to drain off the elbows. 15. Proceed into the room with your hands between waist and eye level and away from the body. 	<ol style="list-style-type: none"> 1. Subungual region harbors the majority of microorganisms found on the hand. 2. Remove debris and transient microorganisms from the nails, hands, and forearms. 3. Hands and forearms are held higher than the elbows and out from the surgical attire to prevent contamination and allow water to run from cleanest area down the arm. 4. Proper disposal of used items prevents cross contamination of surgical hand-scrub area. 5. Reduce the opportunity for dripping water onto sterile areas when gowning and gloving.
E. Demonstrate surgical hand antiseptic (Avagard™).	<ol style="list-style-type: none"> 1. Begin with pre-wash if visible soil is present. 2. Clean under nails with a nail stick for the first use of the day. 3. Dry thoroughly. 4. Dispense one pump (2ml) into palm of hand. 5. Dip fingertips of opposite hand into hand prep and work it under nails. 6. Spread remaining hand prep from wrists to 2” above the elbow. 7. Repeat for other hand & arm. 8. Dispense final pump (2 ml) in either hand and reapply to all aspects of both hands to the wrists. 9. Allow to completely dry before gowning and gloving. 	<ol style="list-style-type: none"> 1. Per manufacturer’s instructions.

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Surgical Instruments, Handling of	Interpretation	Rationale
A. Verbalize process for Censitrac scanning of instruments/pans brought into room that weren't in the case cart.	<ol style="list-style-type: none"> 1. Scan your Censitrac badge to log onto the system. 2. Scan location bar code in the OR. 3. Scan the pick ticket Censitrac bar code. 4. Scan the instrument/pan. 	<ol style="list-style-type: none"> 1. Censitrac is a Quality Tracking Tool to locate instrumentation as well as to document which specific patient the instruments were used on.
B. Verbalize process for verifying sterility of instruments.	<p><u>Rigid Containers:</u></p> <ol style="list-style-type: none"> 1. Instrument pans should be fastened and sealed. 2. Locks should be present, intact, and color changed. 3. Correct filter placement should be verified. 4. After lid is removed, filters should be held to light to check for holes. 5. Internal integrator should be verified in acceptable range before taking out of basket. 6. After removal, inside of container should be checked for moisture and damage. <p><u>Wrapped Containers:</u></p> <ol style="list-style-type: none"> 1. Verify color change on external sterilization tape. 2. Verify that there are no visible holes, tears or moisture. 3. Verify that internal integrator is in acceptable range before placing contents on sterile field. 4. Hold wrapper up to light to check for holes before contents are placed on field. 	<ol style="list-style-type: none"> 1. Health care-acquired surgical infections are a leading cause of patient morbidity and mortality in the United States. Rigorous adherence to the principles of asepsis is the foundation of surgical site infection prevention.
C. Verbalize the process for flashing implants.	<ol style="list-style-type: none"> 1. Implants should remain on a separate table until biological results are known. 2. Sterile scrub person should change gown and gloves before returning to surgical/sterile field. 3. Implant should not be used until biological results are read with a negative result. 4. ORTA will notify team of biological results. 5. If surgeon wants to use implant prior to biological results he must complete a VUMC Exception Form and a Veritas report must be completed. 	<ol style="list-style-type: none"> 1. Health care-acquired surgical infections are a leading cause of patient morbidity and mortality in the United States. Rigorous adherence to the principles of asepsis is the foundation of surgical site infection prevention.
D. Verbalize methods to clean and handle surgical instruments and powered equipment.	<ol style="list-style-type: none"> 1. Follow manufacturer's instructions on cleaning and handling surgical instruments and powered equipment. 2. Do not immerse powered equipment. 3. Wipe instruments with moistened sponge. 4. Instruments with lumens should be irrigated with sterile water. 	<ol style="list-style-type: none"> 1. Proper care of instruments and power equipment safeguards function and effective use preventing procedure delays and patient/staff injury.
E. Verbalize methods of preparation of instruments for decontamination.	<ol style="list-style-type: none"> 1. Place all instruments in appropriate basket. 2. Clean and dirty instruments can be separated using a towel. 3. Instruments are disassembled, sprayed with transport spray, and returned to original container. 4. Remove all filters from casket lids. 5. Lids should be fastened, and container placed inside of sealed case cart. 	<ol style="list-style-type: none"> 1. Ensures all instruments are together in a set for re-processing. 2. Ensures all instrument sets are re-processed in desired location. 3. Prevent corrosion, rusting and pitting of instruments. 4. Readies caskets for decontamination.
F. Verbalize method of returning sterile instrument pans to appropriate staging area.	<ol style="list-style-type: none"> 1. Clinical room staff returns clean instrument pans to appropriate staging area and logs them to the area via Censitrac. 	<ol style="list-style-type: none"> 1. Ensures that unused instrument pans are locatable in Censitrac.

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Universal Protocol: Time Out	Interpretation	Rationale
A. Verbalizes importance of Time Out.	<ol style="list-style-type: none"> 1. Time Out is part of the process for accurate identification of the correct patient, procedure, site, and side. 2. JCAHO approved the Universal Protocol for Preventing Wrong Site, Wrong Procedure and Wrong Person Surgery and the process is effective in all accredited hospitals. 	<ol style="list-style-type: none"> 1. Repeated verifications are employed in a coordinated effort to minimize the risk of a procedure being performed on the incorrect patient, site, or side. 2. Wrong site, wrong procedure and wrong person surgeries are sentinel events that are tracked through the JCAHO sentinel event database. 3. Policy - Universal Protocol - Identification of Correct Patient, Procedure, Site/Side
B. Verbalizes required participating members of the time out.	<ol style="list-style-type: none"> 1. The procedural team participates in the Time Out, including the person who marks the incision site. 2. The proceduralist can be the attending physician, resident or fellow who will be present during the Time Out. 3. During Time Out, other activities are suspended. 4. If any member of the team does not confirm an element of the Time Out, the procedure is stopped. The proceduralist reconciles the discrepancy. Upon reconciliation, the Time Out process is restarted from the beginning. 	<ol style="list-style-type: none"> 1. All members of the procedural team (including the proceduralist who marks the site) participates in a Time Out confirming through active focus the correct patient, procedure, site, and side, and other critical elements.
C. Verbalizes the process for site marking.	<ol style="list-style-type: none"> 1. Site marking occurs if laterality is involved. 2. The proceduralist marks the site with his or her initials (not the letter "x" or the word "no"), prior to the patient entering the OR suite. 3. The site is marked with patient/caregiver participation (e.g., verbal confirmation or visual pointing). 4. The site is marked with a sufficiently permanent marker that is visible after skin is prepped and draped. 	<ol style="list-style-type: none"> 1. Site marking is employed to minimize the risk of a procedure being performed on the incorrect patient, site, or side.
D. Verbalizes confirmation and verification process prior to patient transport to the OR.	<ol style="list-style-type: none"> 1. Confirm and Verify: 2. Patient's name on the ID band, date of birth, and other documents that correspond with the patient's responses. 3. Consents. 4. Availability of implant, if required. 5. Availability of blood, if ordered. 6. Radiologic exams (x-ray, CT scan, MRI, etc.). 	<ol style="list-style-type: none"> 1. Patient / Caregiver responses must match the marked site, ID Band, Consents, Radiologic exams, scheduled procedure.
E. Verbalizes patient identification process.	<ol style="list-style-type: none"> 1. Two Patient Identifiers must be used. 2. Ask patient/caregiver to state the patient's full name. 3. Ask patient/caregiver to state the patient's date of birth. 4. Ask patient/caregiver to verify/state the planned procedure in the patient's own words. 5. When the patient rolls into the room, the patient's identification band will be utilized to confirm the correct patient with their medical record number by two members of the surgical team. 	<ol style="list-style-type: none"> 1. Repeated verifications are employed in a coordinated effort to minimize the risk of a procedure being performed on the incorrect patient, site, or side.
F. Verbalizes process to initiate Time Out and essential elements covered.	<ol style="list-style-type: none"> 1. The Time Out takes place in the procedure/OR room, after the patient is prepped and draped and it involves the ENTIRE TEAM. The circulating nurse assumes the responsibility to call the Time Out. 2. The Time Out confirms the identification of the patient, procedure, side, and site (with marking if applicable). 3. Other elements to cover include the position, implants, diagnosis, equipment, x-rays, patient status, antibiotics, allergies, blood availability, instrument sterility, post op location, and special considerations. 4. When the same patient has two or more procedures and the person performing the procedure changes, an additional Time Out is performed before starting each procedure. 	<ol style="list-style-type: none"> 1. Repeated verifications are employed in a coordinated effort to minimize the risk of a procedure being performed on the incorrect patient, site, or side.

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G. Verbalize implementation of Whiteboard in Time Out procedure.	<ol style="list-style-type: none"> The circulating nurse activates the electronic Time Out checklist by clicking the "Time Out" button in eStar. The checklist questions from eStar will appear individually on the Flight board. As the checklist questions are addressed by the team, the next question will appear. 	<ol style="list-style-type: none"> Repeated verifications are employed in a coordinated effort to minimize the risk of a procedure being performed on the incorrect patient, site, or side.
Wound Class	Interpretation	Rationale
11. Verbalizes History and Significance of Wound Classification.	<ol style="list-style-type: none"> Wound classification began in 1964. The Center for Disease Control and Prevention (CDC) recommended four classifications based on risk factors. Four wound classes are used as predictors of Postoperative infections. 	<ol style="list-style-type: none"> Wound classes identify clusters of infections. Wound classes identify potential risk factors for infections. Wound classes allow comparisons of rates of infections among institutions or surgical specialties.
B. Verbalizes the criteria for the <u>Class 1- Clean wound class.</u>	<ol style="list-style-type: none"> Class 1- Clean – (1-5% rate of infection) Uninfected No inflammation encountered Closed primarily Drained with closed drainage Examples of Clean Cases: <ol style="list-style-type: none"> CAB Most Cardiac Case Closed ortho cases Most neuro cases Mastectomy Splenectomy Vascular surgery Heart transplant Hip/knee prosthesis Hernia 	<ol style="list-style-type: none"> Wound classes establish baseline infection rates for each wound class.
C. Verbalizes the criteria for the <u>Class II- Clean-Contaminated wound class.</u>	<ol style="list-style-type: none"> Class II- Clean- Contaminated (8-11% rate of infection) The following tracts entered under controlled conditions and no unusual contamination occurs: Examples of Clean-Contaminated Cases: <ol style="list-style-type: none"> Appendectomy Liver transplant Cholecystectomy Colorectal surgery C-Section Head and neck surgery Hysterectomy Nephrectomy Kidney transplant Gastric surgery Prostate surgery GU & GYN surgery 	<ol style="list-style-type: none"> Wound classes establish baseline infection rates for each wound class.
D. Verbalizes the criteria for the <u>Class III- Contaminated wound class.</u>	<ol style="list-style-type: none"> Class III Contaminated (12-20% infection rate). Open fresh accidental wounds of less than 4 hours Surgical procedures with major breaks in sterile technique Acute nonpurulent inflammation of tissue Examples of Contaminated Cases: <ol style="list-style-type: none"> Appendectomy for ruptured appendix Gunshot wound to the abdomen Penetrating wounds Bile spillage during cholecystectomy Diverticulitis Compound fractures 	<ol style="list-style-type: none"> Wound classes establish baseline infection rates for each wound class.
E. Verbalizes the criteria for the <u>Class IV- Dirty/Infected wound class.</u>	<ol style="list-style-type: none"> Class IV- Dirty/Infected <ol style="list-style-type: none"> Old traumatic wounds of over 4 hours. Existing clinical infection Perforated viscera. Examples of Dirty-Infected Cases <ol style="list-style-type: none"> Incision and Drainage of abscess 	<ol style="list-style-type: none"> Wound classes establish baseline infection rates for each wound class.

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	<ul style="list-style-type: none"> b. Delayed primary closure of wound after ruptured appendix. c. Positive pre-operative blood cultures. d. Perforated bowel. e. Peritonitis f. Wound debridement. 	
<p>F. Verbalizes nursing responsibilities in identifying/ verifying wound class.</p>	<ul style="list-style-type: none"> 1. Document wound class in eStar 2. Reclassify as needed during a procedure 3. Verify wound class with surgeons at completion of procedure. 	<ul style="list-style-type: none"> 1. Wound classes are often classified at the beginning of case but are rarely reclassified when previously unknown clinical information becomes available. 2. Unexpected inflammation/pus is encountered. 3. Planned exploratory laparotomy converts to small bowel resection. 4. Errors in documentation can occur when wound class is not verified.