INTRAOPERATIVE CARE

**OR staffing supports the provision of safe perioperative patient care and promotes a safe perioperative environment**

**INDICATORS:**

- A minimum of two perioperative nurses are dedicated to the OR/procedure room
- The scrub nurse role is assigned to either a perioperative RN or an LPN who has completed an accredited perioperative nursing course
- The circulating RN is assigned to only one room
- An perioperative LPN may not assume the first circulating nurse role
- For procedures that do not require a scrub role, only one registered nurse is required to be present in the circulating role (e.g. EVLT, endoscopy)
- The anesthesiologist and nursing staff are dedicated to the OR/procedure room from the start to the finish of each procedure

**Traffic patterns should facilitate movement of patients and personnel within the operating room**

**INDICATORS:**

- Restricted, semi-restricted and unrestricted access areas are established within the facility
- Signs clearly indicate the appropriate environmental controls and surgical attire required
- Doors to the operating rooms remain closed except when moving patients, supplies or equipment in and out of the room
- Traffic flow into the operating rooms is kept to a minimum
- The number of personnel assigned to the operating room during a procedure is kept to a minimum
- Movement of clean and sterile supplies and equipment shall be separated from contaminated supplies, equipment and waste by physical space, time or traffic pattern
Facility has written policies and procedures in place for traffic patterns for patients, personnel, supplies and equipment

**Surgical attire and appropriate personal protective equipment (PPE) are worn to promote staff safety and cleanliness and hygiene within the perioperative environment**

**INDICATORS:**
- Surgical scrub attire is made of low-linting material
- Clean surgical attire including shoes and head coverings must be worn in the semi-restricted and restricted areas of the surgical setting
- Surgical masks must be worn when open sterile supplies and equipment are present
- Personnel who temporarily enter the semi-restricted or restricted areas must ensure all streetwear and hair is covered and that shoes are either visibly clean or covered
- Facility has written policies and procedures in place for surgical attire requirements

**Patient positioning practices including the use of positioning devices minimize the risks of injury to patients and staff**

**INDICATORS:**
- All required transfer/positioning and other patient safety devices appropriate to the type of procedure are available and present in the OR prior to the patient entering the room
- Manufacturer’s instructions and purpose for use are followed for all transfer/positioning and other patient safety devices
- Positioning and patient safety devices are documented on the nursing operative record
- Positioning documentation includes the patient’s position, type and location of positioning devices and padding, and pre and post-operative skin assessment

**Surgical count policy is a primary patient injury prevention strategy**

**INDICATORS:**

**Surgical team responsibilities**

- All surgical team members are responsible for the prevention of retained surgical items
- The RN circulator plays a leading role in facilitating the count process (initiating, performing in concert with the surgical team, documentation, count reconciliation activities and reporting any count discrepancy)
- Counts are performed by two regulated health care professionals, one of whom is a registered nurse
○ The scrub nurse and the RN circulator perform ORNAC standardized procedures for all surgical items opened or used during a procedure

○ Scrub nurse maintains an organized sterile field and awareness of the location of radiopaque sponges, miscellaneous items and instruments on the sterile field during the procedure

○ The surgeon does not perform the count but facilitates the count process through awareness of all counted items, communicating placement of surgical items, acknowledging start of the count and accounting for surgical items in the surgical field

○ The anesthesiologist does not perform the count but maintains situational awareness and engages in safe practices that support the prevention of retained surgical items

**Surgical count process**

○ The surgical count is documented and is recorded in a manner that will not obliterate the clarity of each number and the number of times items are counted is clearly identifiable

○ A count of sponges, needles, suture reels, blades and designated miscellaneous items is performed for all procedures

○ A full count of sponges, needles, suture reels, blades, designated miscellaneous items and instruments is performed for all procedures where a cavity* is entered and when there is a potential that a cavity may be entered (e.g. during laparoscopic cholecystectomy, hernia repair)

  *Cavities in the non-hospital setting are limited to the peritoneal cavity

○ An instrument count should be performed for any procedure in which the potential exists that an instrument could be retained

○ Radiopaque surgical soft goods (e.g. sponges, gauze, throat pack, vaginal pack etc) opened onto the sterile field are counted for all procedures

○ Blades, needles, suture reels and other miscellaneous items that are opened onto the sterile field are counted for all procedures

○ Designated miscellaneous items (items used in the sterile field that do not fit into the surgical soft goods, blades, needles and suture reel category but are small enough to have the potential of being retained) include but are not limited to: clip cartridges, peanuts, Kitner dissectors, vessel loops, umbilical/hernia tapes, pins, clamp inserts, ESU tips, scratch pads, screws and other small endoscopic parts (seals, caps, washers, springs)

○ Once a count is initiated, items are not removed from the operating room including garbage and laundry until the final count is complete

○ Whenever the patient requires more than one surgical set-up, a separate count record is used for each set-up

**Incorrect counts**

○ Facility has written policies and procedures in place for the prevention of retained surgical items and unretrieved device fragments

○ Standardized procedures for investigation and reconciliation of count discrepancies are taken during the closing count and before the end of surgery

○ The surgical team carries out steps to locate the missing item
Measures are taken to identify and reduce the risks associated with unretrieved device fragments.

Measures are taken if an incorrect count is not rectified and include:
- arranging for an X-ray and documentation of the X-ray finding
- documentation of the incorrect count on the count sheet
- documentation of the actions taken recorded on the nursing operative record
- documentation of a surgeon’s refusal for an X-ray and the reason for refusal recorded on the nursing operative record
- documentation of patient disclosure recorded on patient chart
- completion of facility incident report form

Completion and submission of the College of Physicians and Surgeons of BC Reportable Incident Form

A sterile field is established and maintained for all surgical procedures to minimize wound contamination and reduce patient risks for surgical site infections.

INDICATORS:
- Only qualified scrubbed personnel (e.g. surgeon, perioperative nurses) establish, function within and monitor the sterile field
- Items used within the sterile field shall be sterile
- All items introduced to the sterile field shall be opened, dispensed and transferred by methods that maintain item sterility and integrity
- The sterile field is maintained and monitored constantly
- All personnel moving within the sterile field do so in a manner that maintains the sterile field
- Facility shall develop written policies and procedures for maintaining a sterile field
- All items are assessed for sterility prior to opening
- Packages dropped on the floor, wet or torn, are considered contaminated
- Once a patient has entered the operating room, all supplies that are opened are considered contaminated and at the end of the case are discarded if single use or reprocessed in accordance with manufacturer’s instructions for use
- Sterile items that have been opened but not used during a procedure and any opened items from a cancelled case shall not be reused; single-use items must be discarded and items that can be reprocessed must be re-cleaned, disinfected, wrapped and sterilized before reuse
- When a bottle of sterile solution is opened and the required amount dispensed, the remainder is discarded; the bottle is not recapped for reuse
- Opened sterile supplies are not left unattended
- Sterile set-ups are not covered with an intent to use at a later time
- Unsterile equipment is covered with a sterile barrier before introduction into the sterile field
Breaks in sterile technique are monitored, documented and corrective action taken as soon as possible

The surgical safety checklist facilitates communication and improves surgical safety and team collaboration

INDICATORS:
- A copy of the surgical safety checklist is posted in each OR/procedure room
- The surgical safety checklist is completed for each surgical case/procedure
- The time of the briefing, time-out and debriefing is documented on the nursing operative record


The preoperative preparation of the patient’s skin reduces the risk of post-operative surgical site infection

INDICATORS:
- Jewelry, including body piercings, should be removed whenever possible and if items cannot be removed the risks are explained to the patient and documented
- Hair is removed only if necessary and is done as close to the time of surgery as possible
- Hair is removed using clippers—razors are not permitted
- Prep solutions:
  - remain in their original containers
  - may not be decanted and stored in another container
  - are dated when opened and discarded within 30 days of opening
  - are not warmed unless the manufacturer’s instructions for use state warming is acceptable
  - if alcohol based, dry completely before drapes are applied
  - type and concentration of the prep solution and the name of person performing the prep is documented on the nursing operative record

Surgical drapes establish an aseptic barrier that minimizes the passage of micro-organisms between non-sterile and sterile areas

INDICATORS:
- Surgical drapes selected are intended for use in health-care facilities
Surgical drapes used to establish a sterile field must be impermeable to liquids including blood and body fluids.

Surgical drapes should be selected according to fire resistance.*

*All materials used in the surgical environment will burn given the right conditions.

If reusable drapes and surgical gowns are used the materials must be appropriate to the method of sterilization and approved by the drape/gown manufacturer.

Disposable drapes and gowns are single use only and must not be re-sterilized.

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**A clean and safe surgical environment minimizes the exposure risk to potentially infectious microorganisms**

**INDICATORS:**

- All horizontal surfaces within the operating room are inspected for cleanliness.
- Equipment entering or leaving the operating room is wiped with a disinfectant appropriate for the intended use.
- Keyboards used by scrub personnel (e.g. refractive laser, ultrasound) are cleaned between procedures.
- All garbage, recyclables, used linen and contaminated instruments are removed at the end of each procedure and before any cleaning commences.
- Any surface or equipment that comes in contact with the patient or body fluids is considered contaminated and is cleaned between cases.
- Disinfecting solutions are liquid, gel or pre-moistened wipes—sprays are not used.
- Suction containers and tubing are changed between patients.
  - Single-use containers are discarded.
  - Reusable containers are cleaned and high-level disinfected between patients.
- Operating rooms, scrub area, corridor, furnishing and equipment is terminally cleaned after the day’s schedule.
- Facility has written policies and procedures in place for preliminary, intraoperative, between-case, terminal, daily, weekly and monthly cleaning.

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**References**

Operating Room Nurses Association of Canada (ORNAC). Recommended standards, guidelines, and position statements for perioperative registered nursing practice. 10th ed. [place unknown]: ORNAC; 2011.