LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES
HARBOR-UCLA MEDICAL CENTER

SUBJECT: PREVENTION OF RETAINED SURGICAL ITEMS **POLICY NO.** 314C

CATEGORY: Provision of Care	**EFFECTIVE DATE:** 6/17
POLICY CONTACT: Dawna Willsey, RN	**UPDATE/REVISION DATE:** 12/21
REVIEWED BY COMMITTEE(S): Operating Room Comm.	

PURPOSE:

- To provide evidence-based guidelines for a proactive injury-prevention strategy designed to assure patient safety and ensure that no sponges, sharps/needles, instruments, or miscellaneous items are unintentionally retained in the patient following surgical or invasive procedures.
- To provide safety rules for:
  - A. Perioperative registered nurses and surgical technologists in the performance of soft good, sharp, instrument, and miscellaneous item counts.
  - B. Surgeons/proceduralists in the performance of a methodical wound exam and actions to prevent unintentional retention of surgical items, devices, and unretrieved device fragments.
  - C. Radiologists and radiology technologists in the performance of intra-operative x-ray examination and referencing information to aid interpretation and read back of intra-operative x-rays.
  - D. Anesthesiologists and anesthesia personnel in preventing unintentional retention of surgical items.
- To encourage and support all efforts to improve Operating Room (OR) teamwork.
- To assist in accounting for all surgical items and minimize inventory loss.

DEFINITIONS:

Surgical Items: Material (supplies, devices, equipment) used in and around a surgical incision or wound, to aid in the performance of the operation or procedure, to provide exposure, and to absorb blood and other body fluids. There are four (4) classes of surgical items:

Soft Goods: Cotton, disposable cloth, or gauze items of various sizes. Those used within the surgical wound are white and include a radiopaque marker. These include, but are not limited to: laparotomy pads, Raytecs, surgical towels, vaginal packing, tonsils, peanuts, and cottonoids. Also considered in the soft goods category are dressings (including vaginal packing), drapes and adjuncts to an operative procedure.
Blue, green or beige-colored drape towels are made of a coarser grade of cotton and are intended to be used as drapes, wipes or covers. They should not contain radiopaque markers, are not to be placed inside of patients, and are not counted.

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Sharps and needles: Metallic items with edges or points capable of cutting or puncturing through other items. These include, but are not limited to: suture needles, scalpel blades, hypodermic needles, spinal needles, electrosurgical unit (ESU) tips, and safety pins.

Instruments: Surgical tools designed to perform a specific function such as cutting, dissecting, grasping, holding, suturing, or retracting tissues. These items are usually stored and sterilized on surgical trays and each may have multiple parts. Examples of such items include, but are not limited to: clamps, knife handles, needle holders, malleable/ribbon retractors, and scissors.

Other Miscellaneous Items: Items used during surgical procedures that are often single use, often not radiopaque, may be plastic, and may be composed of multiple parts. These may include, but are not limited to: ESU scratch pads, vessel loops, umbilical tapes, rubber shods, suture booties, laparoscopic or thoracoscopic ports, trocar sealing caps, defogger solution bottles, bottle caps and pads, disposable instrument inserts, cotton-tip applicators, marking pens, suture reels, screws, nails, ligaclip bars, bulldogs, raney clips, vascular inserts, and wing nuts and bolts.

RETAINED SURGICAL ITEMS: A surgical item that was not intended to remain in the patient or is found in any part of the patient's body after the operation, vaginal birth, or relevant procedure ends. The operation ends after all incisions or procedural access routes have been closed in their entirety. A vaginal birth ends when the mother is in the immediate recovery period (1-2 hours post birth).

RETAINED DEVICES AND UNRETRIEVED DEVICE FRAGMENTS (UDFs): Retained devices and unretrieved device fragments are surgical tools which may become retained in any body cavity, intravascular or interstitial space. A retained device includes the entire unbroken item such as an intact guidewire inadvertently left in a central vein. A UDF is a part or piece of the tool or device. Examples include drill bits, a broken tip or part of an instrument, a broken part of a catheter or drain, piece of a stent, or tip of a guidewire.

SURGICAL COUNT: A process involving two people whereby they look at the items together, one person manually separates each item and they audibly count the number of items ("see, separate and say"). One of the two people must be a Registered Nurse. Surgical counts must be performed in procedures in which an incision is made or a wound is created which is large enough for the retention of a soft good, instrument, or miscellaneous item.

REDLINE/EMERGENT PROCEDURE: A count should be done on redline/emergent procedures if time allows. If a case is deemed redline/emergent, and the nursing staff are unable to perform any indicated count, then a post-operative x-ray of the entire operative site must be taken and read by the radiologist or the attending surgeon/proceduralist before the patient leaves the OR. In the case of unstable patients, the x-ray will be done and read as soon as clinically feasible.

Even if the procedure is designated to be an extreme emergent procedure, if at all possible the initial sponge counts should be performed and the circulating RN should follow sponge accounting practices throughout the procedure. If any count is not performed according to policy, the rationale must be documented and primary decision-maker identified including actions taken, results of radiograph, and name of radiologist or attending surgeon/proceduralist reading the x-ray. The final count will be documented as incorrect and noted as "waived due to patient emergency". The circulating RN will follow Harbor-UCLA Medical Center's policy regarding reporting of incorrect surgical counts. The count is considered incorrect if an initial baseline count was not completed/waived due to patient emergency.

X-RAY: Portable or fluoroscopy, which results in a radiographic image which can be viewed, assessed, and permanently retained as part of the patient's medical record (**See Attachment 2** for view parameters).

SCOPE AND APPLICABILITY:
This policy applies to all Operating Rooms, procedure rooms, Labor and Delivery areas, and all other areas where an incision is made or a wound is created which is large enough for the retention of a soft good, instrument, or miscellaneous item.

I. PROCEDURE:

A. THE SURGICAL COUNT: All counts are conducted by Nursing in coordination with the Surgeon/Proceduralist and documented in the patient's medical record.

1. The IN Counts are:
   a. Initial baseline count is conducted by Nursing before the procedure begins, performed to establish the baseline number of items, detect packaging error, and provide knowledge on how many items are being used during the procedure.
   b. Count conducted whenever new items are added into the field.
   c. Whenever possible the initial IN counts will be performed before the patient enters the OR. Initial counts must be completed before the Time Out is performed or the incision is made.
2. The OUT Counts are:
   a. Interim Counts:
      i. CAVITY Count – Count performed before closure of a cavity within a cavity (e.g., uterus, bladder, stomach, peritoneum). A count performed before placement of mesh to close a space is considered a cavity count.
      ii. CLOSING Count – Count performed before wound closure begins.
      iii. RELIEF Count – Count performed at the time of permanent relief of either the scrub person or circulating nurse. At the time of permanent relief, the surgical count of sponges, sharps and miscellaneous items shall be conducted by the in-coming scrub and the in-coming circulator.
      iv. ANYTIME Count – Count performed at the discretion of any member of the OR team.
   b. The Final Count: Count performed when surgical items are no longer in use and ALL items are passed off the field. The final count can only be recorded as CORRECT or INCORRECT.
3. The OUT counts will be performed in the following sequence each time:
   a. Start with the dry erase board or instrument count sheet
   b. Safe repository where dropped or contaminated items have been placed
   c. Hanging sponge holders; red book/needle counter which have been passed off
   d. Kick buckets, ring stands or containers which hold discarded items from the sterile field
   e. Back table
   f. Mayo stand
   g. Sterile field
   h. Surgical incision
4. If a discrepancy occurs at the final count and the item is never found, or therapeutic packing occurs, this is an instance when IN and OUT counts cannot be reconciled, and documentation of an INCORRECT final count occurs.
5. Separate counts should be maintained for separate procedures. The standard count process will be followed for each procedure.
6. Sponge, needle, and other miscellaneous item counts will be documented on a wall mounted, easily visible dry erase board. Information added to the board cannot be erased until the operation ends.

7. The same standardized format for recording information on the boards will be used throughout all operating rooms.
8. Instrument counts will be recorded on the preprinted instrument count sheets.
9. All trash and linen receptacles and sharps containers will remain in the OR until the conclusion of the procedure. No counted items will be removed from the OR while the procedure is in progress.
10. All counted items will be removed from the OR at the conclusion of the procedure.

B. SOFT GOODS COUNT MANAGEMENT

1. All cotton gauze disposables placed in the patient will be surgical sponges or towels which are white, radiopaque, and RF detectable.
2. Surgical sponges will not be cut or altered, but will remain in their original configuration. Cutting sponges creates additional parts that have to be reconciled, increasing complexity. Cutting off the radiopaque marker, RF chip, or tails negates the safety adjuncts put on the sponges to aid in retrieval should they be lost or to prevent retention.
3. Small surgical sponges (e.g., peanuts, cottonoids) should be passed onto the surgical field on an instrument.
4. White radiopaque/RF detectable cotton surgical towels should be available if a towel is to be used intra-corporally or as a background during suturing on the field. White towels are counted, and documented on the dry erase board, and accounted for at the final count. They are not placed in the hanging plastic sponge holders.
   a. Blue, green or beige drape towels should only be used on the field to drape the surgical incision. These towels are drapes and should not be counted.
   b. All white towels opened onto the sterile field must be visualized by team members during the final count "Show Me" step.
5. Surgical sponges should not be used as dressings. The final count may be incorrect if surgical sponges are used as dressings. If x-rays are taken, these sponges may appear to be falsely located within the wound.
6. Some soft goods (e.g., vaginal packing) may be used as either a counted item during a procedure or as a dressing following the final surgical count and RF wanding.
   a. When vaginal packing is used as a dressing in the vagina following the final surgical count and RF wanding, then they will NOT be included in the surgical count and will be removed by the surgical team as per their usual practice.
7. **ACCOUNTING SYSTEM FOR SPONGES**
   a. Sponges are counted separately, individually, and visually by two persons.
   b. Surgical sponges are to be added to the field ONLY in multiples of ten (with the exception of vaginal packing) and a two person "see, separate and say" IN count of the sponges must occur.
   c. Used sponges coming from the operative field should be placed into a clear plastic bag-lined receptacle (e.g., kick bucket or sponge holder).
   d. Sponge holders will be used during all procedures where surgical sponges are used (**Exception: See Attachment 1**).
      i. Sponges are collected throughout the procedure, separated, opened to their full length to ensure completeness, and placed in the sponge holder.
      ii. Place one (1) sponge per pocket; two (2) sponges per pouch; ten (10) sponges per holder. Load the holder horizontally from the bottom row to the top row, filling first the bottom two pockets and continuing upwards ("bottoms up"). Place the folded sponge inside the pocket with the blue tag or blue stripe visible. Do not let the blue tag dangle outside of the pocket.

iii. iii. Use a separate holder for each sponge type (e.g., one for lap pads, one for Raytecs, one for towels, one for vaginal packs). Do not allow sponges to build up or sit in the receptacle used to collect sponges from the field. Staff will confirm that each holder has the complete number of sponges per package (e.g., 10 for laps or one for vaginal pack). Visual confirmation between the scrub person and circulating nurse can take place before a new empty holder is hung on the rack in front of the holder which is full.

iv. All the sponges – used and unused - must be in the sponge holders at the end of the procedure to have a correct final count and be able to perform a team verification step ("Show me").

v. Sponge holders should remain hanging throughout the procedure. If a rack becomes full, an additional IV pole and rack should be obtained. DO NOT take down the holders from the rack during a procedure. DO NOT roll them up, put in plastic bags or initial them. The final count must have visual confirmation of all sponges in the holders to ensure that each holder is fully loaded with 10 sponges.

vi. "The final count" is taken when ALL the sponges that have been opened during the procedure (used and unused) have been placed in the holders. The sponges should no longer be in use. The surgeon/proceduralist and nurse can then visually verify that all sponges have been accounted for and none remain in the patient. This is the "Show Me" step.

8. The Radio Frequency Detection system is used following the "Show Me Step" to ensure all soft goods have been removed from the field (**See Attachment 3**).

C. CORRECT FINAL COUNT

The skin is closed and all of the sponges (used and unused) are placed in the pockets of the sponge holders. There is a team verification ("Show me" step) that the number of sponges documented on the dry erase board agrees with the number of sponges in the sponge holders.

1. At the time of the final count, ALL sponges (used and unused sponges) MUST be in the sponge holders and two people viewing the sponge holders must make the final verification.
2. The clinician who closes the skin must verify with the circulating nurse that the number of sponges in the holders agrees with the number of sponges documented on the dry erase board. If this is not possible, the anesthesiologist, a charge nurse, or RN who was not involved in the procedure may substitute. The requirement is to have "new eyes" look at the holders and the dry erase board to minimize confirmation bias between the scrub person who counted in the sponges and the circulating nurse.

D. Use of Dry Erase Board

1. The dry erase board is a communication tool.
2. Surgical items (other than instruments) used on the sterile field are recorded on the board in the designated areas.
3. The counts should be easily visible and legibly written. All ORs must use the standardized format.

E. THERAPEUTIC PACKING

1. When surgical sponges are intentionally used for therapeutic intra-cavitary packing and the patient leaves the OR with this packing in place, this is NOT an instance of reportable retained surgical sponges.
2. When a sponge, hemostatic trauma pad, vaginal pack, or instruments are placed (even temporarily) into a body cavity or deep wound during a procedure, the surgeon/proceduralist will announce to

the Operating Room nursing staff. The circulating nurse will record this on the dry erase board. The removal of this packing will also be announced and recorded.

3. When soft goods are intentionally used as packing for therapeutic purposes there will be a number of empty pockets in the sponge holders at the final count. Therefore, the final sponge count is documented as incorrect.
4. The type of surgical sponges used for therapeutic packing should be included in the information transmitted at the transfer of care, and recorded in the medical record.
5. When a surgeon/proceduralist intentionally packs a body cavity or deep wound for therapeutic purposes, the provider will write on the external aspect of the dressing "PACKED SPONGES" in a clearly visible fashion. This notation will signify the presence of packed sponges to all providers regardless of who packed the wound.
6. Body cavities will be packed with sponges that have a radiopaque marker. An RF detectable marker is also preferable when available.
7. The type(s) of radiopaque soft goods used as packing will be documented under the Counts section of the operative record by the circulating RN. This information will be included in the verbal handoff.
8. At the subsequent take-back procedure(s), the items used for therapeutic packing will be kept separate from the items opened for the procedure in progress and the removed lap pads will be placed in a separate sponge holder labeled as removed packing.
9. When therapeutic packing is removed, an x-ray will be taken, and read by either the attending surgeon/proceduralist or a radiologist, regardless of whether the wound or cavity undergoes final closure at that time. In addition, if the wound/cavity is closed at a separate operation, then another x-ray will be taken and read at that time.
10. If the intra-operative x-rays are negative after review by a radiologist or the attending surgeon/proceduralist, and all the surgical sponges from the current operation have been accounted for, the final sponge count for the procedure is documented in the medical record as correct.

F. SHARP AND NEEDLE COUNTS

1. Whenever possible, sharps must be handed to and from the surgeon/proceduralist on an exchange basis.
   a. Sharps must be counted and a red book/needle counter used on all procedures.
   b. When additional sharps are added to the field, they are recorded on the count board. A running total format is used throughout the procedure.
   c. All counted sharps must remain within the Operating Room and/or sterile field during the procedure. If a counted sharp is passed or inadvertently dropped from the sterile field, the circulating nurse must retrieve it, show it to the surgical scrub person, put it in a red book/needle counter, and place in a proximate place to be included in the final count.
   d. Sharps broken during a procedure must be accounted for in their entirety.
2. Suture needles must be counted according to the number marked on the outer package and verified by the surgical scrub person and circulating nurse when the outer package is opened.
   a. Used needles should be put in the red book/needle counter by placing one needle per marked slot in the red book/needle counter.
   b. If there are a large number of needles used during a procedure, at various times during the procedure, a defined number of needles may be counted by the surgical scrub person and circulating nurse, placed in the red book/needle counter and the red book/needle counter labeled, closed and passed off the sterile field. The red book/needle counters are to remain in the room and will be included in the final count.

c. Consideration should be given to sorting needles by size or type in the red book/needle counter so in the event of an incorrect needle count, the size of the missing needle will be known with certainty.
d. Record small and large suture needles separately. Small needles are defined by LA County DHS as needles attached to suture sizes 7-0 or smaller. Large needles are defined as needles attached to suture sizes 6-0 or larger.
e. The needle packages should remain in a basin or container, or in a defined space on the back table until the final count is completed. The needle packages are not to be used to reconcile the needle count. Packages are used solely to have the information on the size of needles opened to the field.
f. If a small needle (attached to suture sizes 7-0 or smaller is missing following a thorough search of the wound and sterile field in a large cavity procedure, an x-ray is not required. The final count for sharps and needles will be recorded as incorrect and the procedures outlined in this policy for an incorrect final count followed. If a missing small needle is never found, this should be disclosed to the patient by the surgeon/proceduralist and the discussion documented in the medical record.

G. INSTRUMENT COUNTS

1. Instrument counts will be performed on:
   a. All abdominal/pelvic procedures.
   b. All chest procedures.
   c. All procedures where an incision is made that is greater than the size of any instrument used.
   d. An initial instrument count is required on all minimally invasive surgery (MIS) procedures. Counted instruments will include those instruments that do not pass through a trocar (e.g., towel clamps, stringer, knife handle). Any MIS procedure which converts to open or has an incision made which is greater than the size of any instrument used, will have subsequent instrument counts performed. For closed MIS procedures, a final instrument count is not required.
   e. Only two instrument counts are required in the OR; an Initial count and a Final count. The Initial count will be taken before the procedure starts, and the Final Count will be started at closing and must be completed before the patient leaves the procedure room.

      i. The initial count will be documented on the preprinted count sheets to verify what is in the instrument trays at the start of the procedure.
      ii. At the start of closing, the instrument count begins at the instrument count sheet, proceeds from off the field, to the back table, through to the incision. At the completion of the final count, all instruments must be out of the patient for the final count to be called correct.
      iii. Any additional instruments opened during the procedure will be counted and added to the preprinted count sheet.
      iv. All counted instruments must remain in the room so they can be accounted for at the end of the procedure.
      v. If an instrument is contaminated, it should be shown to the surgical scrub person and if not needed, secured and remain in the room.
      vi. If instruments have multiple parts, all parts must be accounted for. If a part is missing, a search and X-rays are required. If the part is not found, an incorrect final count for instruments is documented.

vii. If the surgical scrub person receives an instrument back that is broken or missing a part, the surgical scrub person must speak up and tell the team to look for missing pieces.
viii. Personnel in Central Sterile Processing Department (CSPD) must call back to the OR Charge Nurse if missing parts or pieces of instruments are discovered when trays are returned to CSPD.

2. **MANDATORY X-RAY IN LIEU OF AN INSTRUMENT COUNT**
   a. In specified procedures when a very large number of instruments are used or when intra-operative x-ray is a usual part of the procedure, a mandatory x-ray can be used in lieu of the final instrument count (this x-ray examination cannot substitute for sponge, needle or other miscellaneous item surgical counts).
   b. This decision must be documented in the Nursing OR Record.
   c. In these specified procedures, intra-operative x-rays must be obtained and read at the time of the closing count by a radiologist or the attending surgeon/proceduralist BEFORE the incision is closed.

H. MISCELLANEOUS ITEMS

1. Miscellaneous items should be accounted for on all procedures. Exhaustive lists of all items are not feasible, but the most commonly used miscellaneous items for each procedure can be written on the dry erase board. Examples of miscellaneous items are outlined in definitions above. Staff must manage all miscellaneous items and ensure they have been removed from the patient.
2. Organization of all non-radiopaque small items on the sterile field should be continually maintained by the surgical scrub person.
3. In the event of a missing item that does not contain an x-ray marker or is not radiopaque, the surgeon/proceduralist should perform a methodical wound exam, and a thorough search of all areas should be conducted by the surgical scrub person and circulating nurse.

I. ACTIONS TO RECONCILE AN INCORRECT COUNT

1. When a discrepancy in the count(s) is identified, the surgical team is responsible for carrying out steps to locate the missing items: All members of the surgical team must communicate and attempt to locate any missing items in the interest of patient safety.
   a. The RN circulator will notify the surgeon/proceduralist and surgical team that there is a count discrepancy;
   b. The surgeon/proceduralist and team will acknowledge that there is a count discrepancy;
   c. The surgeon/proceduralist will suspend the procedure if patient's condition permits;
   d. The surgeon/proceduralist will perform a methodical wound exploration;
   e. The scrub person and circulating RN will do a manual and visual search, respectively, of the sterile area surrounding the wound and the remainder of the sterile field;
   f. The circulating RN will conduct a search of the non-sterile areas of the room, including the floor, kick buckets, waste and linen containers, in an attempt to locate the item(s);
   g. The RN circulator will report incorrect counts to the nurse in charge for assistance.
   h. If an item initially thought to be missing is found, a recount will be made to reconfirm the presence of the missing item. If the count is confirmed as correct, no further action (e.g., x-ray) is required since the item was found.
   i. If the count remains incorrect, an intraoperative x-ray of the operative site must be taken before the final closure of the wound. The purpose of the radiologic study should be specified in the

"Reason for exam", to rule out a retained surgical item. The x-ray must be read by a radiologist or the attending surgeon/proceduralist.

2. When a small (7-0 or smaller) surgical needle is unaccounted for:
   a. A thorough search of the field should be performed by all personnel.
   b. If the small needle remains unaccounted for after the initial search, ordering an x-ray will be left to the surgeon/proceduralist's discretion.
   c. In the event that an x-ray is not ordered, the surgeon/proceduralist must disclose the unaccounted incorrect needle count to the patient. This disclosure must be documented by the surgeon/proceduralist in the patient's medical record.
   d. Documentation of the incorrect count is done by the RN circulator.
   e. In the event that the surgeon/proceduralist orders an x-ray, existing policies and procedures for confirming and documenting x-ray results will be followed.
   f. When a sponge, sharps, and/or instrument count is incorrect and the radiograph is completed and is negative, the count is still labeled as "incorrect". The results of the count should NOT be changed to "correct" because the radiograph is negative. The count remains incorrect as the missing item(s) remain unaccounted for.
   g. The circulating RN will follow Harbor-UCLA Medical Center's policy regarding the reporting of incorrect surgical counts.

J. DEVICES AND UNRETRIEVED DEVICE FRAGMENTS

1. The surgical scrub person must maintain an organized field and inspect instruments and devices passed to the surgeon/proceduralist and returned from the field to ensure they are complete and intact. The surgical scrub person should speak up if a missing part is discovered.
2. Effort should be made to retrieve any devices or device fragments or parts if possible. Instruments and small miscellaneous items that are broken or damaged during a procedure must be accounted for in their entirety.
3. If part of a broken item is retained in the patient, this is an unretrieved device fragment (UDF).
   a. Sequester the broken device. Do not discard. Obtain lot and serial numbers. An unbroken device or identical surgical item can be used to measure against the residual part to determine the size of the retained fragment.
   b. X-rays should be obtained to document the position of the item and to have knowledge about composition, size and number.

4. In the event it is determined that a device fragment cannot be retrieved from inside the patient without undue risk, this clinical decision should be documented by the surgeon/proceduralist in the medical record. The patient should be informed and a disclosure discussion held. There should be an incorrect final count recorded in the appropriate item category (e.g., broken needle with retained fragment would be an incorrect needle count) and the nurse in charge must be notified. Appropriate retained device reporting should be conducted as required.

K. METHODICAL WOUND EXAMINATION

1. Wound closure pause: A methodical exploration of the operative wound must be conducted prior to closure in every operation and at any time the surgeon/proceduralist is informed of a missing item. The space to be closed must be carefully examined. Special focus should be given to closure of a cavity within a cavity (e.g., heart, major vessel, stomach, bladder, uterus and vagina).
   a. The surgeon/proceduralist should visually and manually make every effort to assure that no unintended surgical items have been left in body cavities.

b. The general process is to look and feel in the recesses of the wound and examine under fatty protuberances and soft-tissue appendages.

2. **ABDOMEN AND PELVIS:** Unless clinically contraindicated for a specific patient, the following steps should be taken for procedures performed in the abdomen or pelvis using appropriate retraction to provide adequate visualization. The operative quadrant should not only be explored, but all four quadrants of the abdomen examined.
   a. Lift transverse colon.
   b. Check above/around the liver and above/around the spleen.
   c. Examine within and between loops of bowel.
   d. Inspect anywhere a retractor or retractor blades were placed.
   e. Examine the pelvis.
   f. Look behind the bladder, uterus and around the upper rectum.
   g. The vagina should be examined if it was entered or explored as part of the procedure.

3. **CHEST AND MEDIASTINUM:** Unless clinically contraindicated for a specific patient, the following general steps should be taken for procedures performed in the mediastinum or thorax.
   a. In a mediastinal procedure, if the mediastinal pleura were opened, examine the ipsilateral pleural cavity.
   b. In a cardiac procedure, elevate the apex of the heart and examine the retrocardiac space.
   c. In a thoracic procedure, examine the thoracic cavity with attention to the thoracic apex and base of the lungs, paravertebral sulcus, and inferior recesses of the diaphragm.
   d. Place a hand or finger behind the lung and palpate from apex to base.

L. HIGH-RISK CONDITIONS FOR RETAINED SURGICAL ITEMS

1. The following conditions are considered high-risk for retained surgical items:
   a. Emergent procedures or other intraoperative emergencies involving more than one operative team.
   b. Actual or suspected discrepancy in surgical counts.
   c. Inability to perform a complete and accurate surgical count, or any time the count is skipped, interrupted, or performed in a hurried or uncontrolled manner at any of the required time points during a surgical procedure.
   d. Any time the surgeon/proceduralist is unable to perform a final methodical wound exploration including visual and, whenever possible, manual exploration.
2. If any one of the above four conditions is met, an x-ray will be taken of all opened body cavities and deep wound areas to confirm that an item has not been inadvertently retained. The x-ray will be read by either the attending surgeon or radiologist before the patient leaves the OR. The absence of retained surgical items will be documented in the medical record before the patient leaves the Operating Room. X-rays of the operative site, to rule-out any retained surgical items, must be ordered by the surgeon/proceduralist and reviewed by a radiologist or attending surgeon/proceduralist, and documented in the medical record as soon as clinically possible during or after completion of the operation. The full Region of Interest using the Missing Surgical Item guidelines still applies and the radiologist must be informed that the x-ray is being obtained in-lieu of surgical counts. Two views are optimal to call an image negative.
3. **REMOVAL OF UNINTENTIONALLY RETAINED FOREIGN BODIES:** Item(s) will be documented and sent as specimens to Pathology for examination. The location, type, and quantity of the item(s) will be documented on the patient's medical record. Immediately, Harbor-UCLA Medical Center policy regarding reporting will be followed to facilitate notification of the appropriate personnel for

further follow-up through the medical and nursing chain of command.

II. RADIOGRAPHIC PROCEDURES AND SAFETY RULES (Attachment 2)

A. INTRAOPERATIVE X-RAY EXAMINATIONS

1. If a surgical item is unaccounted for or discovered to be missing, an intraoperative x-ray is required.
2. An order for a STAT x-ray will be generated by the circulating RN:
   a. The order will include:
      a. completing the "Reason for the Exam" documentation section noting an x-ray to evaluate for retained item(s)
      b. Kind or type of surgical item being looked for (e.g., lap, raytec, 5-0 needle, adson forcep).
   b. It may be useful to show the radiology technologist a sample of the missing item, to give or show the radiologist as well.
3. More than one view is required to completely cover the full surgical field and any additional areas where the item may have traveled. For abdominal packing, an x-ray should include the xiphoid to the pubis bone.
4. Consideration should be given to obtain two views, usually a frontal and lateral or oblique, when possible. If there is any questionable density (e.g., the instrument may be positioned "on-end") two-views should be obtained (**See Attachment 2**).
5. The x-ray will be read by a radiologist or the attending surgeon/proceduralist.

B. COMMUNICATION BETWEEN OPERATING ROOM AND RADIOLOGY PROVIDERS

1. The radiologist on duty will review the film or the digital images of the x-ray and will call the specified OR with the results of the examination and information about the quality and completeness of the image, or with a request for additional information or views to be obtained. The radiologist should explicitly state the findings and also address the adequacy of the image in his read-back to the surgeon/proceduralist (e.g., "there is no Raytecs identified on these good quality complete MSI abdomen images").

III. ANESTHESIA PROVIDER PROCEDURES

A. ANESTHESIA EQUIPMENT AND SOFT GOODS MANAGEMENT

1. Keep anesthesia-related trash and equipment separate from surgical disposal units.
2. Do not discard anesthesia-related equipment into kick buckets or other surgical receptacles.
3. Do not allow surgical equipment to be discarded into anesthesia trash.
4. Do not borrow equipment such as scissors or sponges from the surgical field.
5. Be sure to remove any equipment used for anesthesia procedures such as clamps, needles and dressing gauze from the operating table before surgery starts.
6. If Anesthesia providers assist the scrub team by retrieving items that have fallen from the field, or opening items such as sutures or sponges for the surgical field, inform the circulator promptly.
7. If called upon to review the sponge holders with nursing personnel, review the counts on the dry erase board and observe that there are no empty pockets in any of the holders.
8. Make sure that throat packs, bite blocks, and other such devices are removed from the oropharynx at the appropriate time.

B. COMMUNICATION AND ENGAGEMENT WITH/OR PROVIDERS

1. During team accounting procedures, try not to disturb or distract unless absolutely necessary.
2. When performing milestone actions such as reversal of neuromuscular blockade or extubation, be

aware as to whether or not the final count has been completed. If the count is incorrect, plan the patient's emergence from anesthesia accordingly. In most cases it is desirable to keep the patient anesthetized until all items have been accounted for.

3. If the patient's medical condition is such that prolonged anesthesia or further delay is inappropriate, discussion ensues so that a joint decision can be made which weighs the relative risks of a possible retained item versus the risks of continuing anesthesia and surgery.

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Los Angeles County DHS Expected Practices: Accounting Surgical Needles. June 24, 2014. Accessed January 28, 2015 http://myladhs.lacounty.gov/DHSCR/dhsccl/Surgery/Forms/Allitems.aspx

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Reviewed and approved by:
Medical Executive Committee - 12/2021

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ATTACHMENT 1

SPONGE ACCOUNTING FOR DELIVERY ROOMS:

1. Only X-Ray detectable soft goods are used as sponges during vaginal deliveries.
2. A vaginal pack opened after the final surgical count and RF wanding is considered a dressing and like other dressings is not to be included with the surgical sponges.
3. Once the delivery has started, the sponges are separated and two people count them ("See, Separate and Say"). The number of sponges is documented on the dry-erase board.
4. Sponges are removed from the vagina and deposited into a container on the delivery table.
5. The sponges are added to the container as they are used. The circulating RN is responsible for ensuring that all the used and unused sponges are placed in the container.
6. At the final count, the obstetrician and/or second staff person must verify with the circulating RN that the number of sponges in the container agrees with the number of sponges documented on the dry-erase board.
7. If the physician determines that a vaginal pack is needed, the circulating RN should open a package and give the physician an x-ray detectable vaginal pack.
8. The circulating nurse should perform a verbal handoff to subsequent caregivers noting that a pack has been placed in the vagina.
9. The patient should be told that she has a pack in her vagina and that it will be taken out sometime before she leaves the hospital. The patient should be actively engaged in making sure the pack is removed.

USE OF THE RADIOFREQUENCY (RF) SITUATE DELIVERY SYSTEM

1. Connect the Verisphere cable and set the power switch to the on position.
2. Drape the Verisphere before use. Position the Verisphere in contact or within one inch of the pubic bone.
3. Select Patient Scan to scan the vaginal canal. Hold the Verisphere stationary while the scan is being performed on a patient in either the supine or lithotomy position. The scan takes approximately 15 seconds to complete.
4. The final scan confirmation number will be recorded in the patient's electronic health record.
5. The Verisphere can be used to scan the surrounding area of the L&D suite in search of a missing RF-tagged item. Select Room Scan. Touch Start to initiate the scan. Move the Verisphere around the area at a slow and steady rate, keeping in mind that the effective range is 8 inches. Do not move the Verisphere at a rate faster than 6 inches per second.

ATTACHMENT 2

MISSING SURGICAL ITEM (MSI) X-RAY EXAMS

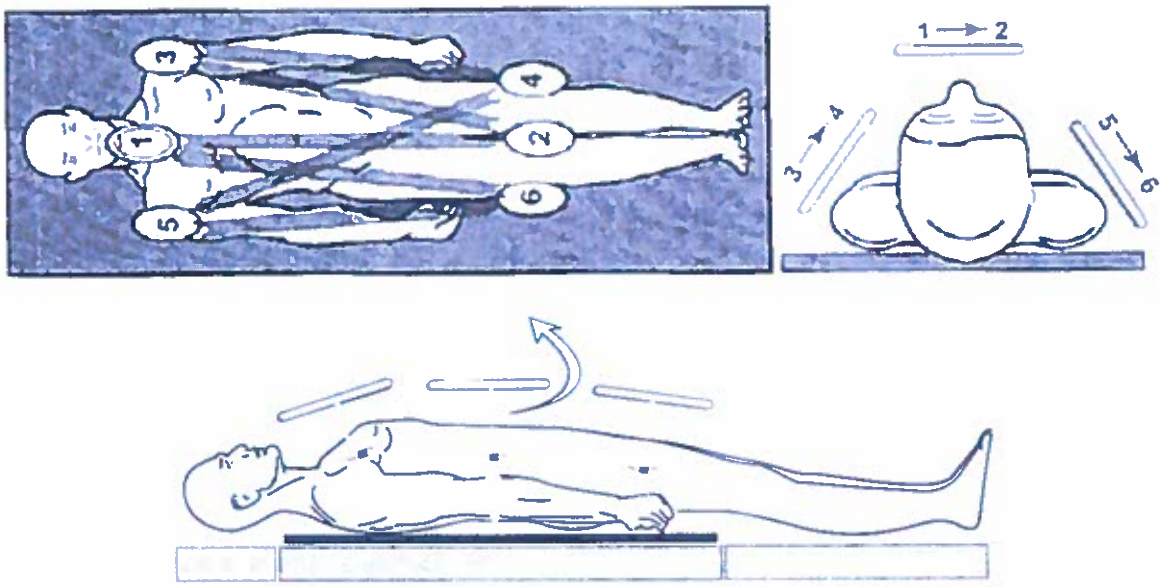
Upon identification of a missing surgical item, the Surgeon/Proceduralist will order a specific STAT x-ray exam. which will include the specific region of interest (ROI) as listed below: Exam	Views	ROI
Cranium	Frontal & Lateral (2V)	Top of Skull to below mandible and bilateral skin borders
Chest	Frontal & Lateral or Frontal & Complimentary Obliques	Apices to costophrenic angels (CPA) and bilateral skin borders
Abdomen/Pelvis & Vagina	Frontal & Lateral or Frontal & Complimentary Obliques	Xiphoid to pubis and bilateral skin borders
Spine	Frontal & Lateral	C-Spine: Neck T-Spine: Chest L-Spine: Abdomen
Extremity	Frontal & Lateral or Oblique (2 Views)	Include above and below ROI and bilateral skin borders

ATTACHMENT 3

USE OF THE RADIO FREQUENCY (RF) WAND/ROOM SCANNER AND MAT/BODY SCANNER

1. Radio frequency scanning is performed by circulator and scrub at all times soft goods are counted during a procedure. Soft good counts must be performed in procedures in which an incision is made, or a wound is created which is large enough for the retention of a soft good.
2. The RF detection mat/body scanner and/or wand/room scanner is used following confirmation of the Final count and completion of the "Show Me Step".
3. The radio frequency detection system is utilized as an adjunct to manual sponge counts on any procedure where soft goods are used. The use of RF detection technology does not replace other required counting activities; it is used in conjunction with the previously established counting procedure.
4. The scanning method utilized for each procedure is at the discretion of the surgical team (mat, wand, or mat and wand).
5. **PRECAUTIONS:**
   a. Temporary cardiac pacers should be set to non-sensing mode (DOO or VOO mode) during scanning to avoid interfering with the sensing of cardiac leads.
6. **RF SCANNING PROCEDURE**
   a. Turn on power switch located on BACK of the console.
   b. Attach wand and/or mat cable to the connector on the console's front panel. The home screen displays the attached scanning devices.
   c. **USE OF MAT/BODY SCANNER**
      i. Verify placement of mat under the entire surgical site with the label side up, below other non-metal devices. If the entire surgical site is not included, a wand scan should be performed.
      ii. Mat only scan can take place in procedures where the depth of the area scanned is not more than 16 inches. For procedures where the depth of the scan area is greater than 16 inches, a wand only scan, or a mat and wand scan will be performed.
      iii. Any RF Mat scan which is inconclusive must be accompanied by use of the RF Wand.
      iv. Press start scan button.
   d. **USE OF WAND/ROOM SCANNER**
      i. For use in the sterile field, the Room Scanner must be covered with a sterile drape.
      ii. The scrub person will conduct the scanning procedure and include both a vertical and horizontal scan. Scan low and slow within 2 inches of the body, following the contour of the patient's body. Do not move the wand at a rate faster than 6 inches per second. Each scan pattern will take between 15 and 20 seconds at a rate of at least three seconds per pass.
   e. **Vertical Scan/ Superior to Inferior**
      i. Touch the Room Scanner button to initiate the scan.
      ii. With wand remaining parallel to the body, move the wand distally from HEAD to TOE. With wand remaining parallel to the body, move the wand down the LEFT side of the body and then down the RIGHT side of the body. Final pass will return wand from LOWER RIGHT of body up to head.

VERTICAL SCAN:

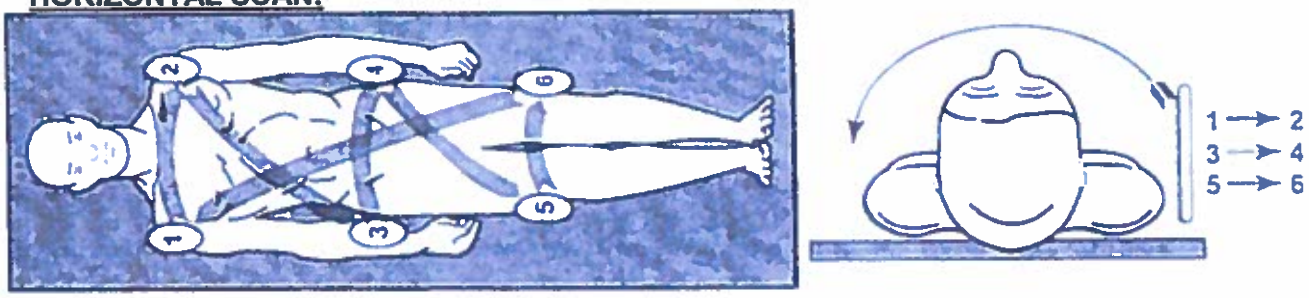


Effective range up to 16" (40.64cm) from tag to wand or mat

Horizontal Scan (Make 3 total passes over body area involved)

1. Place wand on lateral side of torso, parallel to the body and no further than 20 inches from the body.
2. With wand remaining parallel to the body, move wand in arc to opposite side of torso (e.g., from RIGHT side of chest to LEFT side of chest).
3. With wand remaining parallel to the body, move wand in arc to opposite side of torso (e.g., from RIGHT abdomen to LEFT abdomen).
4. With wand remaining parallel to the body move wand in arc to opposite side of torso (e.g., from RIGHT iliac region to LEFT iliac region)

HORIZONTAL SCAN:



f. If the presence of an item is identified by the RF wand, explore the cavity; repeat the scanning procedure until all sponges are accounted for.
g. If the RF detection system alarms and the item triggering the alarm cannot be located on the surgical table, the circulator will scan all kick buckets, linen hampers, and waste containers in the operating room suite to ensure a discarded sponge was not missed in the surgical count.

h. Scan cases should be closed from a CLEAR scan confirmation number. Selecting Close Case from a DETECTION scan-result screen displays a prompt confirming to close the case when the last scan resulted in a detection.

i. **Documentation**
   1. All RF consoles will be documented in the medical record by serial number.
   2. The final Scan Confirmation number(s) and scan method(s) used will be recorded in operative record.