SWAB, SHARP & INSTRUMENTS COUNTS STANDARD OPERATING PROCEDURE	
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1.0 Introduction

Swabs, sharps, instruments and related miscellaneous items are supplies crucial to the surgical procedure and must be accounted throughout every procedure. The types and numbers of swabs, needles and other sharps, and instruments vary for each surgical procedure. (Phillips, 2012) Retained objects are considered to be a preventable occurrence, and many factors including communication, situational awareness and consistent compliance with standardised processes had been shown to reduce the risk of an item being unintentionally retained (AORN 2017) careful counting and documentation can significantly reduce, if not eliminate these incidents (AfPP, 2016).

The standard dictates that there is a safe and consistent process in place to ensure that all items used during perioperative or interventional procedures are accounted for during the procedure and are reconciled at the end, in order to prevent items being unintentionally retained at the surgical site, a body cavity or within any other material (drapes or linen), (AfPP, 2016).

2.0 Purpose

The purpose of this policy is to provide guidance for the perioperative team on best practice related to the management of accountable items used during surgery or procedures in the perioperative environment. It provides guidance to ensure that surgical counts are performed correctly in the practice setting to achieve the following: ensuring commitment to patient safety, accountability for all items; avoiding injury to the patient by avoiding retention of a foreign body and promotion of the optimal perioperative outcome.

3.0 Definition of Standard Operating Procedure

The process of counting all items opened for use during a procedure to reduce the potential for retaining an item used during anaesthetic and surgical procedures.

4.0 Applicable to

This policy applies to all registered nurses and medical staff participating in surgical and invasive procedures in the Operating Theatres of Children's Hospital Ireland (CHI) at Crumlin.

5.0 Policy Statement

Swabs, sharps, instruments and related miscellaneous items must be counted for all surgical procedures audibly and concurrently by two registered nurses or a nurse and operating surgeon. This must be documented on the patient's intraoperative nursing care record. All members' of the perioperative team shall collaborate to ensure that the surgical count is performed correctly. The count process must be strictly adhered to on every occasion, be standardised, verifiable and reliable each time it is undertaken and be carefully documented (EORNA, 2015).

6.0 Responsibility

It is the professional responsibility of individual staff members working in the perioperative setting to ensure that this procedure is adhered to. The surgical count shall be the responsibility of the designated scrub and circulating nurse. However, the entire surgical team has a responsibility to protect the patient from retained foreign body.

7.0 Definitions / Terms

Surgical count **-** The safety process of counting swabs, sharps, and instruments that are opened and delivered to the sterile field for use during surgery.

Raytec **-** The x-ray detectable marker that is woven into the swab to enable swabs to be located on x-ray. All surgical swabs used must contain this marker as a safety measure.

Swabs **-** Also known as Raytec surgical sponges/swabs that are used to absorb fluids, protect tissues, and/or apply pressure or traction (e.g. 30x30, 10x10, 5x5, peanut dissectors, Surgical Patties)

Sharps - Items with edges or points capable of cutting or puncturing through other items. In the context of surgery, items include but are not limited to; suture needles, hypodermic needles and caps, electrosurgical needles and blades, scalpel blades and safety pins.

Instruments - Surgical tools or devices designed to perform a specific function such as cutting, dissecting, grasping, holding, retracting, or suturing.

Miscellaneous items **-** may include but are not limited to; surgical blades, hypodermic needle with cap, suction tips, nylon tapes, slings, suture boots, Peanuts, safety pin, laparoscopic retrieval bag, patties, ophthalmic spears, Qtips, diathermy tips, anti-fog sponge, tip cleaner, bull dogs, snuggers, vascustats, yasargil clips, burr tips, saw blades, three way tap, ligaclip bars, trocar sealing caps, and any other small items that have the potential for being retained in a surgical wound.

Preoperative Count **-** Also referred to as Initial count or Baseline count

First Count **-** Closure of Cavity within a Cavity

Second Count **-** Start of wound closure

Closing Count **-** Final count (Skin closure)

Changeover Count - When the scrub nurse is relieved permanently

8.0 Procedure

- It is the responsibility of two registered nurses to conduct all swabs, sharp and instruments counts and record them in the intraoperative nursing care record. A student nurse, or pre-registered nurse may participate in the count under direct supervision and co-signed by the registered circulating nurse.
- Swabs, sharps and instruments count must be performed for all surgical procedures and recorded immediately. This record must be recorded in the patient's intraoperative nursing care record. Confirmation of correct counts must be signed for in the intraoperative nurse's record.
- Swabs, sharps and instruments must be separated, counted audibly, and concurrently viewed by both the scrub and circulating nurses.
- The surgical team must allow time for the count procedure to be undertaken without undue pressure on the nursing team.

- All perioperative team members must minimise distractions, noise and interruptions during surgical counts.
- Interruptions during a count should not occur. Once a count has been started, it should be completed. If an interruption occurs, the count shall be resumed at the end of the last recorded item.
- Only x-ray detectable swabs are used during surgical procedures and always remains in their original configuration and never altered or cut, or used as a dressing.
- Green swabs should not be used for any surgical procedure.
- When additional items such as swabs, sharps or instruments are added to the sterile field, they are counted at that time and documented immediately.
- Once the surgical count is initiated, swabs, sharps and instruments including linen and clinical waste bags, must remain in the operating room until the final count has been performed, procedure completed, and all items accounted for.
- Items passed off or dropped off the sterile field must be retrieved immediately, using standard precautions, shown to the scrub nurse, isolated from the sterile field and included in the closing counts.
- Instruments removed from theatre for reprocessing must be documented.
- White dressing gauze that is not Raytec should not be opened until after the final count and the skin closure is finished (AORN, 2017).
- **Multiple Procedures**: Where a patient undergoes more than one procedure in the one perioperative episode, a new count sheet is commenced for each individual procedure, e.g. Broviac insertion with Lumbar Puncture and Intrathecal Chemotherapy, alveolar bone graft or surgery on bilateral limbs. The swabs, sharps and instruments are counted and documented for each procedure separately. The final count for each procedure is bagged, tied off and left to one side in the room to allow for an accurate count for the same patient's next procedure
- When the circulating nurse is relieved during a case the nurse is responsible to give a verbal handover of the patient's details and the intraoperative counts sheet beforehand. The relieving circulating nurse must handover in the same manner when the circulating nurse returns. This must be documented.
- It should never be assumed that the count on pre-packaged sterilised swabs is accurate. In the case of a discrepancy found the swabs are counted off immediately and placed in a yellow bag with the string and retain outer packaging and seal. It must be reported to the theatre manager as soon as possible. This will reduce the potential for error in subsequent counts. These swabs are not recorded on the count sheet. A report is made to the supplier of the discrepancy by the theatre manager or their deputy. An incident form must also be completed as per hospital policy.

8.1 How to Conduct a Count

- Remove paper and red string from around the swab bundle and discard the red strings and verbally confirm with the circulating nurse that they have left the sterile field into the yellow bag before counting of the swabs begin.
- All swabs must be opened to display the x-ray strip while counting.
- Swabs are always counted in the same order beginning with the largest swabs and progressing downwards to the smallest swabs.
- Raytec swabs sizes 30x30 are in packs of 5, 10 x 10s is in packs of 10 and 5x5 in packs of 10.
- Count each lot of swabs (30x30) separately in multiples of five, (10x10 & 5x5) separately in multiples of ten. Patties are counted and documented in multiples of ten.

- Peanut swabs are counted in multiples of five and they should never be reloaded onto their pin as a sharp's safety measure. Safety pins must be retained on the sterile field and accounted for.
- The swab counting sequence is as follows: Curity bags, yellow swab bowl, working trolley/ mayo stand and surgical site.
- During surgery, it is the responsibility of the scrub nurse to discard soiled swabs into the yellow swab bowl.
- It is the responsibility of the circulating nurse to transfer the discarded swabs from the yellow swab bowl into the curity counter bags. Each swab should be opened up to check for the presence of other swabs or miss identification of the swab size.
- Separate curity bags are to be used for each individual swab.
- When counting down swabs, count audibly and individually 1, 2, 3, to 10 with both scrub and circulating nurse visualising each swab and the circulating nurse pointing to each swab with a sponge forceps. A second count is performed as the quality check for this count. The curity bag is rolled closed, secured and labelled with the type and number of swabs as soon as the curity bag is full. Bagging swabs reduces the possibility of airborne contamination arising from the sponges as they become dry and facilitates weighing of swabs for estimating blood loss. (Rothrock 2013) The rationale for bagging all swabs used in theatre is to ensure that the following patient is free from injury related to retained swabs, sharps and instruments. (AORN, 2017)
- It is the responsibility of the scrub nurse to initiate the initial count. It is the responsibility of the circulating nurse to direct all closure counts.
- The circulating nurse must have the count sheet in hand when conducting counts.
- Verbal confirmation of a correct or incorrect count must be given to the surgeon after each count and this must be verbally acknowledged by the surgeon.
- At all times during the case, it is the responsibility of the scrub nurse to be aware of the location of all swabs, sharps, instruments and related miscellaneous items. The circulating nurse also shares a fundamental responsibility in accounting for all items in the surgical field to assist in reducing accidental retention of items.
- When used swabs are counted off, they are crossed off with a single slash so the original number can still be seen and initialised.
- All nurses involved in the count must sign the count record. As deemed feasible, counts should be done by the designated scrub and circulating nurses throughout the surgical procedure.
- Once all the procedures for that patient have been completed and the patient leaves the operating theatre, all swabs, sharps and instruments are disposed of according to Hospital Policy.

8.2 Points to observe

- If there is no scrub nurse, the circulating nurse and the surgeon shall count together and this must be appropriately documented in the nursing intraoperative care plan.
- Neatness in approach must be encouraged to ensure that only necessary items are used at any given time.
- Where a sterile trolley is covered after preparation before the procedure commences, the count must not commence until the covers are removed.

8.3 Timing of Counts

- A full swab, instrument and sharps count, must be performed immediately prior to the commencement of surgery. First count at the closure of the cavity. Second count at wound closure and finally at skin closure or at the end of the procedure. An additional count before the closure of a cavity within a cavity (e.g. Heart, bowel, pleura, acetabulum). The scrub nurse must lead on the count to commence and therefore must understand when to count.

8.4 Closing Counts

- **No Cavity**: If there is no cavity involved, e.g. K-wiring, or cystoscopy, or CVC line insertion the following counts must be conducted: Preoperatively, 1st Count and the Final Count. State "N/A" in the Count Sheet in the signature space for the second count.
- **Cavity within a cavity**: The following counts must be conducted: Preoperatively, additional count before the closure of a cavity within a cavity (eg. Heart, bowel, pleura, acetabulum), first count at the closure of the cavity, second count at wound closure and finally at skin closure or at the end of procedure.
- **Changeover Count**: An additional count is conducted when the scrub nurse is relieved by another scrub nurse. The circulating nurse must also state in the front section of the intraoperative nursing care plan the identification of the scrub nurse along with date and time specified. The point at which the care of the patient is transferred between professionals is recognised as high risk in relation to the retention of a foreign body (AfPP, 2016).
- **Swabs Disposal Count:** This is performed by two registered nurses after the final Count. Counting all swabs used into each curity bag at the end of the procedure is done to clarify the final count prior to disposal. This curity bag is disposed of in the small yellow waste bag at the end of the procedure, which is removed from the operating theatre to the sluice room to ensure that all swabs leave the operating theatre before the next procedure.
- **Sharps Disposal Count:** Sharps are all counted in the red sharps box before the box is closed, this must be verified by two nurses and disposed of in the yellow sharps bin.
- It is the responsibility of two registered nurses to conduct all swabs, sharp and instruments counts and record them in the intraoperative nursing care record. A student nurse, or pre-registered nurse may participate in the count under direct supervision and co-signed by the registered circulating nurse.
- Swabs, sharps and instruments count must be performed for all surgical procedures and recorded immediately. This record must be recorded in the patient's intraoperative nursing care record. Confirmation of correct counts must be signed for in the intraoperative nurse's record.
- Swabs, sharps and instruments must be separated, counted audibly, and concurrently viewed by both the scrub and circulating nurses.
- The surgical team must allow time for the count procedure to be undertaken without undue pressure on the nursing team.
- All perioperative team members must minimise distractions, noise and interruptions during surgical counts.
- Interruptions during a count should not occur. Once a count has been started it should be completed. If an interruption occurs, the count shall be resumed at the end of the last recorded item.
- Only x-ray detectable swabs are used during surgical procedures and always remains in their original configuration and never altered or cut, or used as a dressing.

- Green swabs should not be used for any surgical procedure.
- When additional items such as swabs, sharps or instruments are added to the sterile field, they are counted at that time and documented immediately.
- Once the surgical count is initiated, swabs, sharps and instruments including linen and clinical waste bags, must remain in the operating room until the final count has been performed, procedure completed, and all items accounted for.
- Items passed off or dropped off the sterile field must be retrieved immediately, using standard precautions, shown to the scrub nurse, isolated from the sterile field and included in the closing counts.
- Instruments removed from theatre for reprocessing must be documented.
- White dressing gauze that is not Raytec should not be opened until after the final count and the skin closure is finished (AORN, 2017).
- **Multiple Procedures**: Where a patient undergoes more than one procedure in the one perioperative episode, a new count sheet is commenced for each individual procedure, e.g. Broviac insertion with Lumbar Puncture and Intrathecal Chemotherapy, alveolar bone graft or surgery on bilateral limbs. The swabs, sharps and instruments are counted and documented for each procedure separately. The final count for each procedure is bagged, tied off and left to one side in the room to allow for an accurate count for the same patient's next procedure
- When the circulating nurse is relieved during a case the nurse is responsible to give a verbal handover of the patient's details and the intraoperative counts sheet beforehand. The relieving circulating nurse must handover in the same manner when the circulating nurse returns. This must be documented.
- It should never be assumed that the count on pre-packaged sterilised swabs is accurate. In the case of a discrepancy found the swabs are counted off immediately and placed in a yellow bag with the string and retain outer packaging and seal. It must be reported to the theatre manager as soon as possible. This will reduce the potential for error in subsequent counts. These swabs are not recorded on the count sheet. A report is made to the supplier of the discrepancy by the theatre manager or their deputy. An incident form must also be completed as per hospital policy.

8.5 In the event of an immediate life-threatening emergency

It is recognised that it is not always feasible to perform an initial swab and instrument count. However, swabs must be counted as they are handed to the surgeon. In these circumstances, all packaging must be retained to facilitate a count at the earliest and most appropriate opportunity. This must be documented in the intraoperative nurse care plan. An incident form must be completed. When an initial count is not performed, the scrub nurse must attempt to account for all items. Notify nurse-in-charge/CNMI/CNMII as appropriate. The patient must be X-rayed to ensure that no items have been retained.

8.6 Therapeutic Packing

- The use of counted swabs as postoperative therapeutic packing is discouraged. However, if radiopaque detectable swabs are intentionally used as packing and remain in the patient postoperatively this must be recorded in the intraoperative nursing care plan and signed by the scrub and circulating nurse. This must be documented by the surgeon in the patient's operative notes/medical notes.
- The size and number of the swab used must be clearly recorded along with verification of the site.

- The count is signed as Correct where swabs are intentionally used as packing and all swabs have been accounted for. The count is signed as incorrect if the number and type of swabs used for therapeutic packing is not known with certainty (AORN 2017).
- The number and size of swabs used for therapeutic packing must be part of the handover in the transfer of patients care to the Recovery Room, HDU or ICU. The ICU staff must know the importance of informing theatre if swabs are removed.
- On removal of the intentional therapeutic swab packing the number and size of radiopaque swabs must be documented and signed by two registered nurses in the Operative Count Sheet that was used when the packing was inserted. This must occur whether the swabs are removed in theatre or any other hospital department.
- When removed in the operating theatre, the radiopaque swabs are counted, placed in a yellow bag, tied and isolated within the operating room. They are not included in the new intraoperative nurse care plan count sheet.

8.7 Sharps, Needles and other miscellaneous items

- Sharps must be counted in a logical manner. Suture needles must be counted according to the number marked on the outer packet and verified when the packet is opened. Suture needles should be placed tidily onto the red sharps box to allow ease of counting.
- All needles, and supplementary instruments added during the procedure must be documented immediately. This includes but is not limited to hypodermics, diathermy tip cleaner, suction tips, vascustats, reels, etc.
- All sharps must be handled safely and accounted for in their entirety.
- Open sharps must be contained in a puncture resistant container and are stored in the numbered foam section of the container.
- All sharps remain in the sterile field, in the case of the sharp 'drop off' the circulating nurse must retrieve the sharp in a safe manner, show the scrub nurse and retain it safely in a puncture resistant needle counting counter until the final count is complete.
- In major cases where the suture needle count exceeds 40, the scrub nurse is permitted to 'Count off' suture needles when the sharp box is on the sterile trolley is full. First all the suture packets must be counted and then the sutures must be counted to ensure that the entire suture count is correct. Both needles and suture packets must be counted and deemed correct. This suture box is then closed and handed off the sterile field along with the suture packets, placed in a clear plastic bag and isolated in the theatre. Label the plastic bag with a white sticker and state the suture box number and the number of sutures contained in the suture box. When sutures are 'Counted off' the number of needles, i.e. '40' is misused form the suture number.
- The suture boxes are disposed of into the large sharps container only at the end of the surgical procedure, when the final count is deemed correct.

8.8 Instruments

- Instruments must be counted on all procedures. Each instrument must be separated, counted audibly and concurrently viewed during the count procedures by the circulating nurse and scrub nurse.
- Protective tips should be removed and disposed of accordingly.
- All instruments must be accounted for in their entirety, e.g. screws, nuts, drill bits etc.
- Instruments count should be taken:

  - Before the procedure to establish a baseline
  - Before closure of a cavity within a cavity
  - Before wound closure begins
  - At skin closure or end of procedure
  - At the time of permanent relief of either the scrub person or the circulating nurse

- When additional instruments are added to the field, they must be counted when added and recorded.
- Instruments should be inspected to ensure that all parts are present and functional. Members of the surgical team should account for disassembled or broken instruments in their entirety, including all parts of the instrument(s).
- Instruments count should be performed in the same sequence each time:
  - Instruments container
  - Sterile trolley
  - Operative site

- Any instruments removed from the set for repair should be replaced immediately if possible. If this is not possible document the removal on the checklist and written information to HSSD. The CNM 2 must be informed so that arrangements can be made for prompt replacement of the instrument.
- A set from which an instrument is missing before commencing a procedure which has not been noted as missing by HSSD personnel should not be used if possible. It should be reported to the HSSD manager. An incident form must also be completed as per hospital policy.and an investigation carried out to trace the missing instrument in HSSD records. This is to safe guard against the risk of an incorrect count, should the set have been used.
- Instruments disassembled or broken during a procedure must be accounted for in their entirety and replaced if possible. If they cannot be found and X-ray is required.

8.9 Discrepancy in the Count

- In the event of a discrepancy in the count, the surgical team and nurses are responsible for carrying out steps to locate the item.
- Any discrepancy in the count must be identified and reported to the lead surgeon immediately.
- A verbal acknowledgement is required from the surgeon to alleviate any misunderstanding.
- If possible, the procedure is suspended.
- It is the responsibility of the scrub and circulating nurses to conduct a meticulous count.
- It is the responsibility of the scrub nurse to search the operating field, mayo table, working trolley, and back trolley and the sterile rubbish bag attached to the sterile trolley.
- It is the responsibility of the circulating nurse to carry out a visual inspection of all surfaces in the theatre including floor, yellow swab bowl, waste bins, under the furniture, footwear and gowns of relevant personnel and equipment. A manual check of the clinical waste bins, linen bins and all other waste bins within the operating theatre and the adjacent must be thoroughly searched immediately.
- A subsequent count must be conducted by the scrub and circulating nurses after the first search and if the item is still missing inform the surgeon again and the Clinical Nurse Manager or nurse in charge immediately.

- The Clinical Nurse Manager on duty or senior nurse in-charge must supervise and assist with all the proceedings. It is the responsibility of the scrub and circulating nurses to ensure hospital policy is implemented. Communication must be made to the surgeons regarding the outcome.
- Manual inspection of the operative site by the surgical team occurs concurrently. The Surgeon must perform a thorough check of the wound and around the operating field.
- Bins and other receptacles are not permitted to be removed from the theatre until final count is completed.
- After all search options have been exhausted, best practice stipulates that an X-ray film should be organised and taken before the patient leaves the operating theatre. The X-ray must be ordered and reviewed by the surgical team.
- The patients wound closure is to be done depending on the lead surgeon's judgement.
- The circulating and scrub nurse must document incorrect count and the actions taken must be recorded in the patient's intraoperative nursing care plan.
- An incident report must be completed detailing the issues and include any subsequent actions taken. (ACORN, 2013)

9.0 Documentation

- It is the responsibility of the scrub nurse to ensure that the documentation for completion of the count is recorded accurately (AfPP, 2016).
- It is paramount that only document what you have counted. Never document for someone else to avoid the risk of double documentation.
- All items that are added to the sterile field must be documented immediately.
- The circulating nurse sign for the counts in the intraoperative nurse care plan as each count is performed. The scrub nurse signs for all the counts they conducted at the end of the surgery in the intraoperative nurse care plan record.

10.0 Implementation Plan

10.1 Staff

- Initial education on swab, sharp and instrument counts to ensure all theatre nurses are aware and have a clear understanding of this policy.
- Ongoing and systematic education for all nurses in the operating theatre department to ensure staff is up to date with the counts procedure.
- Theatre management will facilitate education and training on swab, sharp and instrument counts for all new staff to the operating theatre department to ensure compliance.
- A copy of this policy must be available and accessible to all staff in the operating theatre department in the SOP folder located in the theatre conference room.

10.2 Policy

- This policy should be enforced as operational guideline in the practice setting and supersedes all previous policies.
- This policy should be included in orientation and ongoing education of nursing staff to assist the development of knowledge, skills, and attitudes that affect patient outcomes.
- This policy should be readily available to all staff in the practice setting.

11.0 Evaluation and Audit

- Regular audit of practice should be undertaken.
- This policy should be reviewed periodically based on current evidence, best practice, and validated research.

12.0 References

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