Standard Operating Procedure
Surgical Count

Relevant to:
All staff performing, assisting or acting as the scrub/circulating practitioner for a surgical or invasive procedure

Purpose of Procedure:
To ensure there is a safe and consistent process in place to ensure that all items used during a surgical or invasive procedure are accounted for during the procedure and are reconciled at the end (AfPP 2016).
To ensure the safety of the peri-operative patient and those having invasive/surgical procedures performed in all areas including but not restricted to Main Theatres, Sunderland Day Case Centre (SDCC), Obstetric Theatres and delivery rooms, Day Surgery Procedure Suite (DSPS) and Interventional Suite.

Procedure to Follow:

Key Principles
The Scrub Practitioner must scrub up allowing adequate time for the checking process prior to the patients transfer on to the operating table

When the count starts there must be no interruptions. If any interruption occurs during the counting procedure, the count must be restarted

The sequence for counting swabs must be the same for all procedures, from smallest to largest

The Scrub Practitioner and Circulating Assistant must count aloud and in unison with each other to acknowledge each item. Other noise in the operating theatre must be kept to a minimum during this time

The initial full swab, instrument and sharps count must be performed immediately prior to the commencement of surgery

A second count should occur before closure of a cavity within a cavity, including implant replacement (i.e. femoral component into femur), before wound closure begins, and finally at skin closure or at the end of the procedure giving a total of a minimum of three counts

X-ray detectable swabs used for urinary catheterisation or line insertion procedures should remain in operating theatre/procedure room and be part of the count

In the event of a NCEPOD 1 immediate life-threatening emergency (NCEPOD 2004) it is recognised that it is not always feasible to perform an initial swab and instrument count and delay intervention. In these circumstances all packaging must be retained to facilitate a count being undertaken at the earliest and most appropriate opportunity and documented in the patient’s records
THE SEQUENCE FOR SURGICAL COUNTS IS SWABS, SHARPS, DISPOSABLE ITEMS AND INSTRUMENTS

The surgical count must include the following:
- all x-ray detectable swabs
- red ties
- pledgets and patties
- cotton wool balls
- blades, including all skin graft blades
- saw blades
- hypodermic/spinal needles
- suture needles
- slings
- nylon tape
- scratch pads
- bulldogs
- rubber shods
- diathermy and attachments
- disposable marking pens
- drain introducers
- suture needles
- quills
- laparoscopic retrieval bags
- all surgical instruments
- digital tourniquets
- tampons
- cord clamps

This list is by no means exhaustive and the scrub practitioner must count any item that is used in close proximity to the surgical field

Counting Swabs and String Ties

Each swab must be separated and opened fully and concurrently viewed and the radiopaque marker demonstrated to the Circulating Assistant. Checks must be made based on multiples of five. The integrity of the X-ray detectable markers in swabs, packs, peanuts etc., as well as the integrity of tapes on abdominal swabs/packs (AfPP 2012) must be checked during the count

When multiple packs of swabs are being checked at one time they must be counted into separate groups of five
All swabs are packed in bundles of five. If there is a bundle of swabs containing less or more than five they must be immediately collected by the Circulating Assistant in a plastic bag and removed from the operating theatre and placed in a clinical waste bag in the sluice.

An incident report must be completed and a record of the serial number from the pack is recorded on the incident form.

The red string that secures each bundle of swabs must not be removed until immediately prior to checking each bundle and must be stored securely on an instrument pin on the instrument trolley. Red strings must be included in the surgical count.

The swab count is immediately recorded on the swab count board in multiples of 5 e.g. 5+5+5+5 and as subsequent packets are open.

**Counting Hypodermic /Suture needles**

Hypodermic needles must be counted and recorded.

Suture needles must be counted and recorded initially as a total amount on the count board and additional items required during the procedure are added individually according to the number of needles and recorded as running total.

All suture packs are retained on the sterile trolley and when counting needles the number of packets should be counted first, followed by the number of needles.

**Counting Instruments**

The instrument checklists for all instruments must be used to undertake the count.

The Circulating Assistant must read the number and type of instrument from the printed instrument checklist and the Scrub Practitioner must verbally acknowledge the presence of each named instrument.

Any missing instrument or additional items found on the tray must be recorded on the instrument checklist and an Sterile Services complaint form should be completed.

All instruments must be accounted for, for all procedures.

All instruments must be checked separately against the instrument checklist and the date, location, patient hospital number, the name of the Scrub Practitioner/Circulating Assistant should be entered on each sheet.

Instruments that come with screws, removable parts or are disassembled into their component must be counted singly [not as a whole unit] with all component parts listed [e.g. one balfour retractor, one blade, three screws].
All supplementary single packed instruments (single wraps) must be counted and recorded. At the end of the procedure the single wraps must be returned in the original packaging to the Sterile Services Department.

**Throat packs**
Throat pack insertion and removal times should be documented on the swab count board. Insertion and removal should also be verbally acknowledged, accounted for and recorded in the patient’s records.

**Counting Out/Down Swabs**
The Scrub Practitioner must open each swab fully and count out, in unison with the Circulating Assistant, five used swabs of equal size into a protected runner bowl.

The Circulating Assistant, wearing personal protective equipment then places the discarded swabs into the swab pocket, displayed on the wall in view of the scrub practitioner. Each swab will be placed in a separate pocket.

When the swab pockets are full, a further count must occur with the scrub and circulating practitioners and the pockets removed from the hanger, rolled and stored in a clear plastic bag and sealed. The corresponding red string must stay on the instrument trolley, secured on an instrument pin.

This process is applied to all used swabs. The number of sealed bags must be counted at the closure counts, to confirm that they correspond with the number used during the procedure.

The count on the count board is then adjusted by striking a X through the number five, which applies to the size checked.

The swabs may be required to be weighed and the accumulated blood loss recorded on a blood loss form and this information will be shared with the team.

Any swabs placed on the patient (i.e. face) which are occluded by the drapes or used to protect the skin beneath a retractor must be recorded on count board in the ‘swab in cavity’ section.

All counts, during the procedure, must start with the discarded skin prep swabs followed by those on the sterile trolley and then the surgical field.

All items must remain within the operating theatre until the procedure is completed and all the counts have been performed and are correct. This includes laundry and clinical waste bags.
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In exceptional circumstances, where x-ray detectable swabs are used as a dressing, the swabs must be counted within the count and this must be recorded in the patient’s care record and Safe Surgery Checklist.

**Swabs placed in a Cavity during surgery**

It is the Operating Surgeon’s responsibility to announce that a swab has been placed in a cavity. This must be recorded on the swab count board in the ‘swab in cavity’ section by the Circulating Assistant e.g. 1 x swab (3 x 4) in right upper abdomen/under liver/left lower abdomen etc. On removal the Circulating Assistant will strike a line through the record on the count board.

Any recognition method, of a pack in use (e.g. artery forcep on the tape of an abdominal pack) must be risk assessed as appropriate and safe.

When these actions take place a verbal acknowledgement between the Operating Surgeon, the Scrub Practitioner and the Circulating Assistant must occur.

When swabs are placed into a cavity in rapid succession it may not be possible to keep an accurate count. The Operating Surgeon must ensure that all swabs have been removed prior to wound closure.

The Scrub Practitioner must inform the surgeon immediately when a discrepancy is realised.

The scrub practitioner can withhold closure material until a missing item is located. If there are any concerns, please contact the theatre floor co-ordinator.

**Intentionally using swabs to pack a cavity**

The Operating Surgeon must communicate with the Scrub Practitioner prior to intentionally packing a cavity.

A thorough swab count must be undertaken to establish the count is correct prior to pack insertion.

Once the count is correct the Operating Surgeon will commence packing and the Scrub Practitioner must count each swab and size placed into the cavity with the Operating Surgeon and the Circulating Assistant.

The Circulating Assistant must record on the count board the quantity, type, size and the location of swabs.

The Surgeon must also record the number of packs left in situ on the Operation Note. The Scrub Practitioner must log any packs left in patients in the theatre documentation and ensure a thorough verbal handover to recovery/critical care staff.
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The presence of packs post operatively will be communicated by the Recovery Practitioner to the receiving ward nurse when the care of the patient is handed over on discharge from the Recovery Unit.

All records of packs left in situ must correspond, should be confirmed during the Sign Out Process and subsequently documented fully in the patients notes.

A pink ID band to indicate a cavity pack has been left in situ must be put on the patient’s wrist before leaving the operating theatre/procedure room. Before the patient leaves the recovery unit and/or on handover to the ward, a check must occur of the pink ID band with instructions highlighted to the receiving member of staff from the ward.

When packs are removed on the ward or when returning to theatre, the ward nurse should complete remove the patient Pink ID band and document this in the patients notes.

For unintentional count discrepancies please see Count Discrepancy

Removal of Retained Packs

When the patient returns to the operating theatre for removal of the packs, the perioperative team must identify the number, size and type of swabs to be removed during the surgical “Time Out” and this must be recorded on the count board.

If taped swabs have been used, on removal, the tapes on all packs are checked to be intact.

The packs are then placed in a plastic bag, which is labelled and disposed of into the clinical waste.

Packs that are removed must not be included in the count. The number of packs removed will be recorded on the swab count board and documented in the patient’s electronic/paper care record.

Hypodermic Needles/Suture Needles

Hypodermic and suture needles should be recorded as a total amount at the commencement of the procedure and additional items should be added individually on the swab count board according to the number marked on the outer package ie, 3 + 1 + 1. The total number of hypodermic and suture needles used by the end of the procedure should be record as a total number in the patient record.

Sterile suture packets should be retained and used for a check-back procedure when counting needle.

Opening all suture packets during the initial needle count is not recommended.
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Used needles on the sterile field should be retained in a disposable, puncture-resistant needle container

The scrub practitioner must carefully track all needles in the surgical field

If a blade/suture needle or an instrument breaks during use, all fragments must be retrieved and accounted for

**Dropped items**

If any item is inadvertently dropped during the procedure this must be retrieved by the Circulating Assistant, shown to the Scrub Practitioner and placed in a container within the operating theatre and visible to the Scrub Practitioner. The item is recorded on the swab count board

Nothing should be removed from the theatre until the procedure is completed and all the counts have been performed and are correct. This includes laundry and clinical waste bags. All waste bags must be labelled with date, theatre number and case number prior to being removed from the theatre

**Damaged or Faulty Instrumentation**

Any damaged or faulty instrument identified must be immediately taken out of use and at the end of the procedure this is marked with the appropriate tag.

The instrument checklist must be completed with details of the fault/damage and a sterile services report form completed

X-ray detectable gauze must not have the raytec removed by a member of the operating team in order to use as a surface dressing as this will affect product liability

**Final Count**

The final count must be carried out immediately prior to or at the commencement of the skin closure and include all items (e.g. instruments, swabs, needles and miscellaneous items)

At the end of the procedure all items must be returned to the correct instrument trays. The instrument checklists should be completed and supplementary/single wrap instruments must be returned to their corresponding packets before returning to IHSS

On completion of the procedure the Scrub Practitioner will take responsibility for ensuring Sign Out occurs and this will include, but is not be limited to:

- The surgeon stating the procedure performed
- Confirmation of correct count
- Equipment concerns
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- Recovery / ITU informed & prepared
- Specimens identified correctly
- Tourniquets removed (if applicable)
- Throat pack removed (if applicable)

**Count Discrepancy**

If at any stage of the procedure there is a discrepancy in the count, it is the responsibility of the scrub practitioner to ensure that:

- The operating surgeon is informed immediately.
- The count is repeated by the Scrub Practitioner and Circulating Practitioner
- A thorough search of the operating theatre takes place – this includes all discarded bags of swabs, clinical waste bags, drapes, instrument trays, sterile bags, receivers, trolleys and the operating theatre floor
- The surgeon must carefully check the operating site
- The theatre floor co-ordinator must be informed immediately

**If the discrepancy is not resolved:**

- A plain film xray is recommended before any closure takes place (MHRA 2005)
- If a plain film xray is not possible, an xray should be undertaken using the portable C-arm image intensifier. Please note, sub-optimal images may be produced and a plain film is recommended. It is the responsibility of the operating surgeon to review these images.

  - If the xray is inconclusive and/or the missing item is not located, a plain film xray must be performed at the next appropriate opportunity. The Duty Radiologist should be contacted to review the plain film xray. The potential retained item must be documented on the xray request form. A CT scan of the cavity to rule out a retained item may be required

- The patient should not leave the operating/procedure room until the missing item is accounted for. In situations where this is not possible, clinical need and patient safety should be considered and the reason and forward plan should be documented in patient notes
If the operating surgeon considers the risk of retrieval outweighs the benefit in retrieval (e.g., a needle fragment) this must be documented in the patient’s care record and the patient informed post procedure.

Missing microscopic items (e.g., 5.7 – 10mm needles that are not detectable on X-rays) should be recorded in the patient theatre documentation. For these cases, X-rays can be taken at surgeon discretion.

An X-ray must be taken for all missing needles size 11mm and larger. A plain film X-ray must be arranged at the nearest appropriate time.

Duty of candour must be performed by the operating surgeon and documented in the patient’s notes.

In the event of a missing instrument, a copy of the instrument checklist must be retained to assist in any investigation.

All discrepancies must be reported to the theatre floor coordinator, Matron, and Deputy Director of Nursing at the time of the incident. Out of hours this should be reported to the theatre coordinator immediately and to the Matron and Deputy Director of nursing via email.

All unresolved discrepancies require an incident form to be completed immediately following the incident and subsequent investigation performed if required.

Implications of not following procedure:

Not following the standard procedure of counting items used during a surgical/invasive procedure may result in items being retained and causing harm to patients including additional surgery.

Lack of, or incorrect, surgical count is a recognised clinical factor of a ‘Never Event’ (NHSEngland, 2015)

Missing items may also harm other staff members or members of the public as well as causing a financial strain at replacing the missing items.

Useful Contacts:

Theatre floor co-ordinator
Theatre Matron
Clinical Co-Director Perioperative and Critical Care
Deputy Director of Nursing
X-ray
OnCall radiologist
Monitoring the Process:
Datix reports will reduce as the number of discrepancies reduce
Use of Promoting Professional Forum will start to reduce as all team members complete
their responsibilities and duties.
Before completing counts, all staff will be subject to competency based assessment to
ensure competency

Pre-registered nursing or midwifery students, student ODPs or student assistant theatre
practitioners, care support workers or maternity assistants should have supernumerary
status until they have been deemed competent to assist with the count by an appropriately
qualified member of the perioperative team. It is recommended that this should be the
designated registered student practice supervisor/assessor. The count must additionally be
signed and validated by an appropriately registered practitioner/RN or ODP as previously
stated.

An introduction to the local count policy must be included in the new staff orientation
programme

All existing perioperative staff with receive this SOP and corresponding policy with a
declaration to be completed on acknowledgement and implementation

National Definitions:
Retained Object: Retention of a foreign object in a patient after a surgical/invasive
procedure

Surgical/invasive procedure: includes interventional radiology, cardiology, interventions
related to vaginal birth and interventions performed outside the surgical environment – for
example, central line placement in ward areas.

Foreign object includes any items subject to a formal counting/checking process at the
start of the procedure and before its completion (such as for swabs, needles, instruments
and guidewires) except where items:

• not subject to the formal counting/checking process are inserted any time before the
procedure, with the intention of removing them during the procedure but they are not
removed
• subject to the counting/checking process are inserted during the procedure and then
intentionally retained after its completion, with removal planned for a later time or date as
clearly recorded in the patient’s notes
• are known to be missing before completion of the procedure and may be inside the patient
(eg screw fragments, drill bits) but action to locate and/or retrieve them is impossible or
more damaging than retention.
**Never Event**: A serious incident is wholly preventable because guidance or safety recommendations proving strong systemic protective barriers are available at national level and should have been implemented by all healthcare providers (NHSI, 2018)

**Reference Material & Associated Documents:**


**Revision History**

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**Approval Signatures:**

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<th>1</th>
<th>ID No:</th>
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<td>Distribution:</td>
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<tr>
<td>Date Approved:</td>
<td>25 October 2019</td>
<td></td>
<td></td>
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<tr>
<td>Approved By:</td>
<td>Divisional Governance and Management Board</td>
<td></td>
<td></td>
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<tr>
<td>Review date:</td>
<td>October 2021</td>
<td></td>
<td></td>
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<tr>
<td>Author:</td>
<td>Head of Nursing</td>
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