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Ministry of Health

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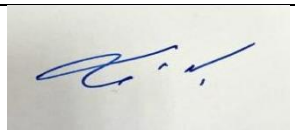
Signature:		Signature:	
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1 Acknowledgments:

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2. Definitions:

2.1 **Surgical count:** A safety procedure for counting any countable item such as swabs, sharps, and instruments that are opened and delivered to the sterile field for use during surgery**.**

2.2 **Swabs:** sterile Surgical sponges/swabs with surgical x-ray detectable Raytee that are used to absorb fluids, protect tissues, and/or apply pressure or traction (e.g., 30x30, 10x10, 5x5, peanut dissectors, and Surgical Patties).

2.3 **Raytec:** The x-ray detectable marker that is woven into the swab to enable swabs to be located using impinging equipment.

2.4 **Sharps:** Items with edges or points capable of cutting or puncturing through other items.

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

2.6 **Before-surgery count:** referred to as baseline count must be accomplished before the surgery.

2.7 **First Count:** The count that is been performed prior the closure the cavity.

2.8 **Before closure Count:** The final count before the skin closure.

2.9 **After surgery count:** A final count occurs at the commencement of the closure of skin layer or at the end of the procedure when all countable items are not required any more.

2.10 **Changeover Count:** When the scrub nurse is relieved permanently.

2.11 **Count discrepancy:** When a missing or extra a surgical item such as swabs, sharps, instruments, tools, or devices, are identified during surgery.

2.12 **Retained surgical item (RSI):** is when a countable item is left behind unintentionally during a surgical intervention

2.13 **Surgical team:** includes the surgeon, anaesthetist, anaesthetic technician (if available) and perioperative nurses.

3. Acronyms:

OT	Operation Theatre
RSI	Retained surgical item
MOH	Ministry of Health

3 Introduction:

In the complex and dynamic environment of the operating theatre, meticulous attention to the management of surgical supplies—such as swabs, sharps, instruments, and other miscellaneous items—is paramount for patient safety and procedural success. These items, integral to surgical procedures, must be precisely accounted for at all stages to prevent adverse outcomes. Variability in the types and quantities of these materials, depending on the specific surgical procedure, necessitates a robust and standardized approach to tracking.

Incidents of count discrepancies, which may lead to retained surgical items (RSIs), occur in approximately 13% of all surgical cases, underscoring a significant area for improvement within perioperative care. The consequences of RSIs are manifold, ranging from extended hospital stays to severe patient harm and, in extreme cases, mortality. However, evidence indicates that such incidents are largely preventable through enhanced communication, heightened situational awareness, and strict adherence to standardized counting protocols.

In response to this critical safety issue, the development and implementation of a comprehensive SOP for surgical counts are essential. This document outlines the procedures and protocols designed to mitigate the risk of RSIs, ensuring that all surgical items are accounted for before, during, and after procedures. By instituting these measures, we commit to advancing surgical safety, minimizing the risk of count discrepancies, and fostering a culture of vigilance and responsibility among the surgical team

4 Purpose:

The objective of this Standard Operating Procedure (SOP) is to delineate best practices for the surgical team concerning the management of countable items within the perioperative setting. This guidance aims to standardize processes for tracking surgical materials—ensuring safety and accuracy throughout surgical procedures.

5 Scope:

This Standard Operating Procedure (SOP) is relevant and shall be adhered to by all members of the surgical team across Ministry of Health (MoH) hospital facilities

6 Procedure

Surgical count SOP provide a standardised process of counting for all surgical items before surgery, before closure, and after the surgery to maintain patient safety.

7.1 Operating Theatre Surgical Count Protocol

7.1.1 Initiation of Surgical Count: The surgical count shall be jointly conducted by the scrub nurse and the circulating nurse to ensure accuracy and accountability at all stages of the surgical process.

7.1.2 Change in Personnel: In the event of personnel changes during the surgical procedure, a comprehensive recount of all items is mandatory to maintain continuity and ensure no discrepancies arise.

7.1.3 Item Separation: During the count, it is imperative that all items are distinctly separated to facilitate an accurate and efficient counting process.

7.1.4 Use of X-ray Detectable Swabs: Only swabs that are detectable by X-ray should be utilized during surgical procedures to minimize the risk of retained surgical items.

7.1.5 Containment of Counted Items: Once initiated, the surgical count dictates that all items, including swabs, sharps, instruments, linen, and clinical waste bags, must remain within the operating theatre until the final count has been verified and the procedure concluded.

7.1.6 Management of Non-Raytec Dressing Gauze: Dressing gauze lacking X-ray detectability (non-Raytec) must not be opened or utilized until after the final count has been confirmed and skin closure is complete.

7.1.7 Utilization of Waste Disposal Bags: New, color-coded (yellow for clinical waste and black for general waste) disposal bags must be employed for each patient to ensure proper waste segregation and management.

7.1.8 Addition of Items: Any items introduced during the surgical procedure must be promptly counted and accurately documented to maintain a comprehensive inventory.

7.1.9 Item Location Awareness: The scrub nurse is responsible for maintaining awareness of the location of all counted items throughout the procedure to prevent any items from being misplaced or unaccounted for.

7.1.10 Final Count and Item Removal: No items are to be removed from the operating theatre until the final count is complete and the patient has been safely transferred out of the area.

7.1.11 Communication of Count Findings: The results of the surgical count must be clearly communicated to the surgeon, who must provide verbal acknowledgment, ensuring mutual understanding and agreement on the count's accuracy.

7.1.12 Reopening Incisions: Should an incision need to be reopened post the initial after-surgery count, a subsequent before-closure count is required to verify no items have been introduced or lost in the interim.

7.1.13 Disposal Post-Procedure: Following the completion of all procedures and the patient's departure from the operating theatre, all swabs, sharps, and instruments are to be disposed of or processed in accordance with national health and safety policies.

7.2 Protocol for Counting Sponges and Swabs

Prior to commencement of the counting process, all swabs must be fully unfolded to reveal the x-ray detectable strip, ensuring each item can be accurately accounted for.

7.2.1 Sequential Counting Method: The counting of swabs shall proceed in a sequential manner, starting with the largest size and moving systematically to the smallest, to maintain order and efficiency during the count.

7.2.2 Lot Counting Procedures: Each lot of swabs shall be counted separately, grouping them in multiples of five (e.g., 5x5, 10x10, 30x30, & 45x45), or according to the specific count indicated on the package. This standardization ensures consistency and accuracy in tracking swab quantities.

7.2.3 Counting of Patties: Surgical patties, due to their specific usage and size, are to be counted and recorded in multiples of ten, distinguishing them from other swab types for clear documentation and tracking.

7.2.4 Handling of Discrepancies in Package Contents: In instances where the content of a swab package does not align with standard quantities (either less or more), the entire package must be excluded from the surgical field. This measure prevents any confusion or inaccuracies in the surgical count and maintains the integrity of the counting process.

7.3 Management of Sharps:

7.3.1 Counting Suture Needles: Suture needles must be counted in accordance with the quantity specified on the package. This ensures that all needles are accounted for before the procedure begins.

7.3.2 Verification of Multiple Suture Needles: When a package containing multiple suture needles is opened, the circulator nurse must verify the count alongside the package's stated quantity to ensure accuracy.

7.3.3 Sutures Package Management: The sutures package should remain within the boundaries of the surgical field throughout the procedure. This practice facilitates verification during the post-surgery count phase, ensuring no needles are misplaced.

7.3.4 Handling Sharps Breakage: In the event of sharps (e.g., needles, blades) breakage during surgery, all fragments must be collected and handed back to the scrub nurse for appropriate disposal. These items should be kept within the surgical field until the after-surgery count is completed to ensure all pieces are accounted for.

7.3.5 Containment of Needles: Whenever possible, needles should be securely stored in designated sharps pads, needle counters, or containers. This minimizes the risk of needle stick injuries and facilitates accurate counting.

7.3.6 Disposal of Used Needle Blades: All used needle blades must be immediately placed into a puncture-resistant container specifically designed for sharp objects. This container should be disposable to ensure safe and effective sharps management.

7.4 Handling of Surgical Instruments:

7.4.1 Verification Against Checklist: Prior to use, all surgical instruments must be meticulously checked and verified against the instrument set's checklist to ensure completeness and readiness for the procedure.

7.4.2 Standardization of Instrument Sets: Within each institution, instrument sets must be standardized to ensure uniformity and facilitate efficiency in surgical procedures. This standardization aids in the accuracy of the counting process and reduces the potential for errors.

7.4.3 Counting of Multi-component Instruments: Instruments comprised of multiple parts, such as the Balfour retractor, must be disassembled and each component counted separately. This ensures that all parts are accounted for before, during, and after the surgical procedure.

7.4.4 Instrument Inspection: All instruments must undergo a thorough inspection before their use in surgery. This inspection is critical to identify any damages or malfunctions that could compromise patient safety or surgical outcomes.

7.4.5 Management of Dropped Instruments: Any instrument that exits the sterile field, whether by passing off the designated area or falling to the floor, must be subject to re-counting during the before-closure phase of the surgery. Such instruments should be replaced or resterilized if needed before being reintroduced into the sterile field.

7.4.6 Handling of Damaged Instruments: In the event that an instrument is found to be broken or malfunctioning, it must still be accounted for in its entirety to prevent any parts from being overlooked or left in the surgical site. A decision must then be made regarding its repair or replacement.

7.4.7 Post-procedure Instrument Removal: Following the completion of the surgical procedure, all instruments must be carefully collected and removed for cleaning, sterilization, and preparation for future use. This step is essential for maintaining a high standard of hygiene and readiness for subsequent surgeries.

6.5 Documentation:

6.5.1 All nurses involved in the count must sign the count record.

6.5.2 The circulator nurses should complete documentation in Alshifa system, see **Error! Reference source not found.**:

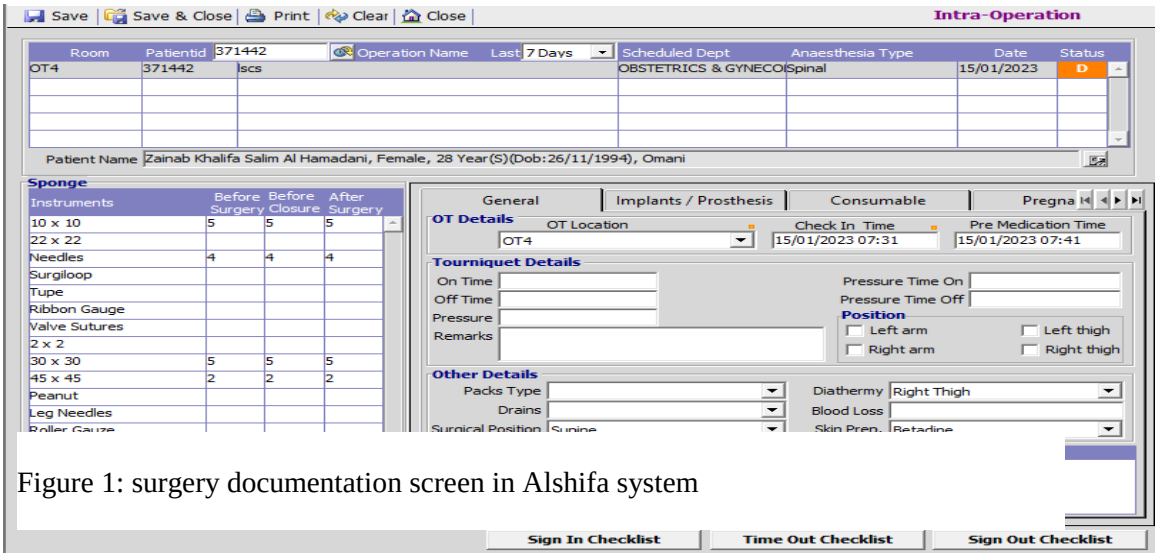

Figure 1: surgery documentation screen in Alshifa system

6.6 Surgical Count Protocols

7.6.1 Pre-Surgery Count: This count is conducted prior to the initiation of surgery to ensure that all necessary instruments, swabs, and sharps are present and accounted for. This establishes a baseline for all subsequent counts.

7.6.2 First Count: Executed before the closure of any internal cavities, this count ensures that no items are inadvertently left within the body before proceeding to the next stage of the surgery.

7.6.3 Second Count: This count is undertaken at the commencement of closing the primary wound or cavity, serving as an additional verification layer to prevent retained surgical items.

7.6.4 Before-Closure Count: Conducted as the final verification step before the skin is closed, this crucial count ensures that all countable items are accounted for outside the patient's body.

7.6.5 Post-Surgery Count: This final count takes place at the end of the surgical procedure or upon the closure of the skin layer, confirming that all items are accounted for and no surplus or deficiency exists.

7.6.6 Count Discrepancy: In the event of a discrepancy—either a missing or an extra item—immediate action is required to identify and rectify the discrepancy. This includes a thorough search and, if necessary, additional measures such as radiographic confirmation to locate any potentially retained items.

6.7 Key Observations for Surgical Counting Procedures

7.6.1 Designated Counters: The responsibility for performing counts lies with the designated scrub nurse and circulating nurse. Their collaboration ensures continuous and accurate tracking of surgical items throughout the procedure.

7.6.2 Alternate Counting Arrangements: In scenarios where a scrub nurse is unavailable, the circulating nurse and the surgeon are required to conduct the counts together. This collaboration must be thoroughly documented within the nursing intraoperative care plan to maintain a record of adherence to counting protocols.

7.6.3 Counting Standards: A minimum of three counts is mandated: one before the surgery begins, one before any internal closures, and a final one after the surgical cavities involved and the stratification of surgical layers. This flexibility ensures that

the counting process is tailored to the specific requirements of each surgical procedure, enhancing patient safety.

7.8 Management of Count Discrepancies

7.8.1 Initial Response to Discrepancy: Upon recognition of a count discrepancy, it is incumbent upon the entire surgical team to initiate the established protocol for addressing and resolving the discrepancy or locating the missing item.

7.8.2 Notification of Discrepancy: The circulating nurse must promptly inform the lead surgeon and anesthesiologist about the discrepancy, providing specific details regarding the missing item's quantity and type.

7.8.3 Surgeon's Verbal Acknowledgment: It is crucial to obtain a verbal acknowledgment from the surgeon regarding the count discrepancy to prevent any misunderstandings and confirm awareness of the situation.

7.8.4 Immediate Resolution Efforts: The surgical team is obligated to undertake prompt and decisive actions to rectify the count discrepancy.

7.8.5 Recount Procedure: A comprehensive recount must be conducted by the scrub nurse and circulating nurse to verify the count and attempt to identify the discrepancy.

7.8.6 Additional Support: Should the initial recount efforts prove insufficient; the circulating nurse is authorized to summon additional staff to aid in resolving the discrepancy.

7.8.7 Procedure Suspension: In circumstances where it is feasible, the surgical procedure or wound closure may be temporarily halted to facilitate the search for the missing item.

7.8.9 Comprehensive Inspection: A thorough manual and visual inspection of all operating room contents and surfaces is required, ensuring no area is overlooked.

7.8.10 Radiographic Verification: If the discrepancy remains unresolved or the item is not found, a pre-closure radiographic examination is mandated to locate the missing item or confirm its absence from the surgical site.

7.8.11 Consultation in Special Circumstances: Prior to skin closure, if the surgical procedure falls outside the operating surgeon's department or expertise, immediate consultation with the patient's responsible consultant is necessary.

7.8.8 Extensive Search: A detailed search of the sterile field and surrounding areas—including the operating site, drapes, operating room table, trolleys, instrument

procedure is completed. It is acknowledged, however, that the specific number of counts may vary based on the complexity of the surgery, including the number of trays, and sterile waste containers—must be performed by the scrub nurse in collaboration with the surgical team

7.8.12 Documentation of Discrepancy: All details pertaining to the count discrepancy, including the type and quantity of the missing item, must be meticulously documented in the peri-operative records.

7.8.13 Communication with Operating Theatre In-Charge: The circulating nurse is responsible for promptly communicating the count discrepancy and subsequent actions to the in-charge nurse of the operating theatres.

7.8.14 Incident Reporting: A formal clinical incident report must be prepared by the scrub nurse, detailing the discrepancy and the response actions taken.

7.8.15 Team Responsibility: The prevention of count discrepancies and adherence to the management protocol is a collective responsibility of all perioperative team members, underscoring the importance of vigilance and compliance with established procedures.

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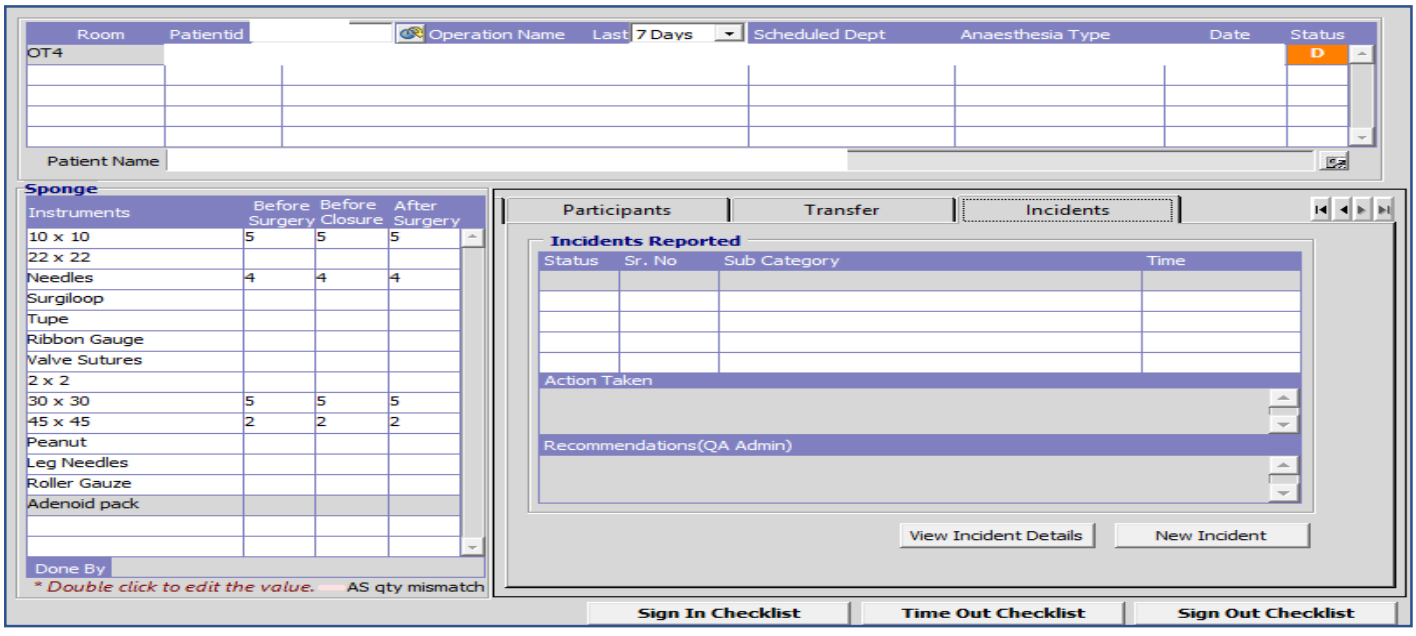

Figure 2: Intra-operative Notes

8. Responsibilities:

9.1 Roles & Responsibilities with the Surgical Team

9.1.1 Surgeon:

9.1.1.1 To receive the instruments, swabs and sharps from the scrub nurse
9.1.1.2 To return used instruments to the scrub nurse, once used.
9.1.1.3 To acknowledge the counts.
9.1.1.4 To verbalise the closing different parts of the surgical sites such as the cavity or skin.

9.1.2 Scrub Nurse:

Preparation:

9.1.2.1 To verify the number of instruments in the surgical sets against the enclosed checklist from the central sterilising unit.
9.1.2.2 To count any added countable item whenever a new package is opened.

Instrument & Item Management:

9.1.2.3 To initiate the counts with the circulator,
9.1.2.4 To discard soiled swabs during the surgery into the designated location according to infection control guideline.
9.1.2.5 To place used sharps in a designated location.
9.1.2.6 Have control over the working are, instrumentation, countable items (e.g., no instruments left on patient's body).
9.1.2.7 Instruments must be handled according to the infection control recommendation including wearing personal protective equipment to reduce the risk of exposure to infectious pathogens.

Count Verification:

9.1.2.8 The scrub nurse should initiate counts, while the circulator nurse directs the counts process.
9.1.2.9 Be conscious of the location of all swab's sharps, instruments, and other countable items.

9.1.3 Circulator Nurse:

Count Assistance:

9.1.3.1 To actively assist with verification during the surgical counts alongside the scrub nurse.
9.1.3.2 To document the types and quantities of any countable items on the designated board.

9.1.3.3 To confirm that the documentation of count findings is recorded accurately in the

9.1.3.4 AL-Shifa system.

Management of Used Items:

9.1.3.5 To either hang the used swabs on the swab rack or place them in designated bowl.

Safety and Prevention:

9.1.3.6 To share a main role in

9.1.3.7 It is entire surgical team members responsibility to ensuring all items used in the surgical field are counted for, thereby reducing the risk of unintentional returned of surgical items.

9.1.3.8

9.1.3.9 To maintain an optimal environment to allow the surgical team to focus during the surgical intervention.

9.1.4 OT In-charge:

Audit & Compliance:

9.1.4.1 To regularly audit and ensure adherence to established SOP within the OT.

Investigation:

9.1.4.2 To conduct investigations and derive conclusions whenever count discrepancies arise.

9.1.4.3 To audit compliance rate with SOP.

Staff Training & Development:

9.1.4.4 To ensure that all the OT staff nurses are adequately trained and updated with the latest protocols and techniques.

Feedback & Continuous Improvement:

9.1.4.5 Facilitate a feedback loop with the OT staff to identify areas for improvement.

9.1.4.6 Implement process improvement activities based on feedback and regular evaluation.

Documentation & Record Keeping:

9.1.4.7 To audit accurate and timely documentation of surgical count procedures (i.e., count discrepancies management).

9.1.5 Anaesthetist:

Patient Safety:

9.1.5.1 To be accountable for "throat" packs placed before or during the surgery. This involves ensuring their safe placement, management during the procedures, and guaranteed removal post-operatively.

9. Document History and Version Control

Version	Description	Review Date
1	Initial Release	

10. References:

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