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# Table of contents:

No.	Content	Page No.
1.	Acknowledgment	3
2.	Acronyms	4
3.	Definition	4
4.	Introduction	5
5.	Purpose	5
6.	Scope	6
7.	Procedure	7
8.	Responsibilities	8
9.	Document History & Version	10
	control	
10.	Reference	10
11.	Annexes	12

# 1 Acknowledgments:

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## 2 Acronyms:

ОТ	Operating Theatres
OR	Operating Room
МОН	Ministry of Health

### 3. Definitions:

- 3.1 **Contamination:** The presence of microorganisms in a sterile environment, which can compromise the sterile field and increase the risk of infection at the surgical site.
- 3.2 **Disposable Drapes:** Single-use drapes made from a material that is intended to be discarded after one use. They are used to maintain a sterile field and reduce the risk of cross-contamination.
- 3.3 **Reusable Drapes:** Drapes made from materials that can be sterilized and reused for multiple surgical procedures. They must be thoroughly inspected for integrity and cleanliness before each use
- 3.4 **Surgical Draping:** The process of using sterile materials to cover the patient and surrounding areas in an operating theatre to create a sterile field around the surgical site. This is critical for preventing contamination and maintaining an aseptic environment during surgical procedures.
- 3.5 **Sterile Field:** An area around the surgical site, including the patient and instruments, that has been prepared using sterile techniques to prevent infection and contamination. It is maintained throughout the surgical procedure.
- 3.6 **Scrub Team:** Members of the surgical team who have performed a surgical hand scrub and are dressed in sterile gowns and gloves. They work directly in the sterile field and are responsible for handling sterile equipment and instruments.

- 3.7 **Neutral Zone:** A designated area within the sterile field where sharp instruments can be placed and exchanged between members of the surgical team. This practice reduces the risk of accidental needle-stick injuries.
- 3.8 **Sterility:** The absence of all living microorganisms, including bacteria, viruses, spores, and fungi, achieved through sterilization processes to ensure that surgical instruments, drapes, and other materials do not transmit infectious pathogens

#### 4 Introduction:

In the dynamic and sterile environment of Operating Theatres (OT), the practice of surgical draping stands as a cornerstone of patient safety and infection control. This procedure not only delineates the boundaries of the sterile field but also serves as a protective barrier, shielding the patient and the surgical site from potential sources of contamination. The meticulous process of draping, involving the careful placement of sterile barriers around the operation site, is pivotal in minimizing the risk of post-operative infections. It ensures that the surgical team can focus on the procedure with the confidence that the operative field remains uncompromised.

At the heart of this SOP is a commitment to uphold the highest standards of sterility and patient care within the Ministry of Health's Operating Theatres. By outlining best practices and standardized procedures for surgical draping, this document aims to foster an environment where safety, efficiency, and quality care are seamlessly integrated. The purpose of this introduction is to underscore the significance of surgical draping as a critical component of surgical protocol, emphasizing its role in maintaining sterility, minimizing microbial transfer, and establishing a secure and uncontaminated surgical field.

Through the collective efforts of the surgical team, adhering to the guidelines and procedures detailed herein, we strive to achieve optimal outcomes for our patients. This SOP is a testament to our ongoing dedication to excellence in surgical care, embodying the principles of quality management and patient safety that are at the core of our mission.

# 5 Purpose:

- 5.1 **Safeguard Health and Safety:** By standardizing draping practices, it aims to minimize post-operative infections and maintain high standards of hygiene, while ensuring the creation and preservation of sterile environments to prevent surgical contamination.
- 5.2 **Promote Excellence and Compliance:** This SOP encourages the adoption of best practices and consistent excellence in surgical care. It serves as a comprehensive training and compliance resource for all staff, facilitating proficiency in surgical draping techniques.
- 5.3 **Drive Quality and Improvement:** Through providing a framework for the continuous evaluation and refinement of draping practices, this SOP supports the Ministry's commitment to enhancing the quality of surgical care and ensuring patient safety.

### 6 Scope:

The scope of this Standard Operating Procedure (SOP) encompasses the following areas to ensure comprehensive coverage and applicability within healthcare institutions under the Ministry of Health (MOH):

- 6.1 **Applicability:** This SOP is applicable to all surgical personnel, including surgeons, assistant surgeons, scrub nurses, and circulating nurses, operating within the Operating Theatres (OT) of healthcare facilities. It is mandatory for all members of the surgical team who are involved in the preparation, execution, and conclusion of surgical procedures.
- 6.2 **Surgical Procedures:** The SOP covers a wide range of surgical interventions performed in the OT, from minor to major surgeries, requiring the establishment of a sterile field through surgical draping. This includes elective and emergency surgeries across various Surgical specialties.

- 6.3 **Draping Materials and Equipment:** This SOP provides guidelines on the selection, handling, and disposal of both disposable and reusable draping materials. It also includes the use of related surgical equipment that must be draped to maintain sterility within the surgical field.
- 6.4 **Sterility and Infection Control Practices:** The scope includes protocols for ensuring sterility throughout the surgical process, including pre-draping skin preparation, the draping process itself, and the handling of drapes post-surgery to prevent contamination and infection.
- 6.5 **Regulatory Compliance:** This SOP is designed to align with national and international standards for surgical practices, infection control, and patient safety. It ensures that surgical draping procedures comply with regulatory requirements and professional guidelines.

### 7 Procedure:

Based on the literature review, the process of surgical draping, particularly for two-site operations including donor site surgery and procedures requiring changing patient positions during surgery, presents a nuanced set of challenges and practices. Here's a refined and updated approach to surgical draping, incorporating insights from the latest studies:

- 7.1 **Initiate Sterile Environment:** Begin by establishing a sterile field around the operative site, progressing outward to peripheral areas. Ensure that the nearest side of any non-sterile surface is covered with drapes to maintain the sterility of both the gown and personnel involved. It is critical to avoid reaching across the operating table to place drapes on the opposite side, as this can compromise sterility.
- 7.2 **Gloved Hands Protection:** When handling drapes, protect gloved hands by cuffing the end of the sheet over them, ensuring that gloved hands do not come into contact with the patient's skin.

- 7.3 **Sheet Unfolding Technique:** In the process of unfolding a sheet from the operative site toward the foot or head of the table, protect gloved hands by enclosing them in a turned-back cuff of the sheet. This technique is designed to maintain sterility and should be executed with hands kept at the level of the table.
- 7.4 **Drape Placement:** Hold the drape elevated above the patient until it is correctly positioned directly over the intended area without allowing it to touch non-sterile surfaces.
- 7.5 **Handling Towel Clips:** Once a towel clip has been applied, do not reposition it as the tip is considered non-sterile. If removal is necessary, discard the clip without touching its points and without compromising the sterile setup.
- 7.6 **Drape Repositioning:** Avoid repositioning the drape once it has made contact with the skin. If repositioning is necessary, consider using an additional sterile drape to cover the area or replacing the entire drape.
- 7.7 **Addressing Drape Integrity:** If a hole or tear is identified in a drape after placement, cover the area with a new piece of sterile draping material or replace the entire drape to maintain a sterile field.
- 7.8 **Coverage Requirements:** Drapes must provide comprehensive coverage, creating an adequate sterile field that includes the entire patient, operating table, and any adjacent areas like the foot of the patient and anesthesia shield, leaving only the incision site exposed.
- 7.9 **Sterility of Draped Surfaces:** The upper surface of the draped area is considered sterile. Any part of the drape that falls below the level of the table or touches the floor is deemed non-sterile and must be managed accordingly to maintain the integrity of the sterile field.

## 8 Responsibilities:

### 8.1 **Surgeon:**

- 8.1.1 **Procedure Communication:** Clearly articulate the specific requirements for the surgical procedure and the corresponding draping needs.
- 8.1.2 **Draping Assistance:** Participate in the draping process as necessary to ensure accuracy and sterility.
- 8.1.3 **Sterile Field Maintenance:** Oversee and ensure the integrity of the sterile field throughout the surgical procedure.

## 8.2 Assistant Surgeon:

- 8.2.1 **Draping Support:** Help in draping to ensure the procedure is conducted smoothly and efficiently.
- 8.2.2 **Sterile Environment:** Actively participate in maintaining the sterile field, collaborating closely with the surgical team to prevent contamination.

#### 8.3 **Scrub Nurse:**

- 8.3.1 **Drape Preparation:** Ensure all required drapes are readily available and prepared for the procedure, including verifying their sterility (e.g., checking the Expiration date and autoclave tape on packaging).
- 8.3.2 **Draping Assistance**: Aid in the draping process, ensuring the techniques are correctly applied to maintain sterility.
- 8.3.3 **Field Integrity:** Carefully maintain the sterile field, promptly addressing any breaches or potential contamination risks.

### 8.4 Circulating Nurse:

- 8.4.1 **Operational Support:** Provide assistance with draping by facilitating the smooth execution of the process, including supplying additional drapes or materials as needed.
- 8.4.2 **Sterility Verification:** Monitor the sterility of the surgical team and the environment, ensuring compliance with aseptic techniques.
- 8.4.3 **Field Surveillance**: Ensure the ongoing maintenance of the sterile field, identifying and mitigating any risks of contamination.

### 8.5 Anaesthesiologist/Anaesthetist:

- 8.5.1 **Communication:** Inform the surgical team about any concerns related to anesthesia that may affect the draping process or sterile field.
- 8.5.2 **Monitoring:** Keep a vigilant eye on the patient's physiological status while ensuring their area remains sterile, especially when managing airway equipment that might intersect with draped areas.
- 8.5.3 **Collaboration:** Work closely with the circulating nurse and scrub nurse to manage any equipment that needs to be brought into the sterile field after the initiation of anesthesia.

## 8.6 Central sterile supply department (CSSD) Technician:

- 8.6.1 **Sterilization Verification:** Ensure all drapes (if reusable), instruments, and equipment are properly sterilized and ready for use. Central Sterile unite
- 8.6.2 **Supply Management:** Keep a continuous check on the inventory of sterile supplies, including drapes, to ensure availability for all scheduled surgeries.
- 8.6.3 **Quality Control:** Monitor and report any issues with sterile supplies or equipment to prevent potential breaches in the sterile field.

### 8.7 Operating Theatre Nurse In-Charge:

- 8.7.1 **Scheduling**: Coordinate surgery schedules to ensure adequate time for proper draping and adherence to sterile procedures.
- 8.7.2 **Policy Enforcement**: Ensure compliance with all hospital and departmental policies related to sterility, including draping procedures.
- 8.7.3 **Training and Compliance:** Oversee the training of all OT personnel in sterile techniques and the correct draping procedures, ensuring that standards are maintained across all surgical procedures.

# 9 Document History and Version Control

Version	Description	Review Date
1	Initial Release	

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# 11. Annexes:

	Procedure	Procedure Illustration	
	10.1 Abdominal Surgery:		
10.2	Prepare to hand over four towels to begin wrapping the prepared area, leaving only the surgical area exposed.		
10.3	Pass one end of the folded drape to the surgeon, supporting the folds, keeping it high and holding it taut until it is opened; then lay it down as near as possible to the incision site.		
10.4	Ensure glove hand is cuffed, to prevent contamination of the sterile gloves		
10.5	Drape the upper and the lower position in the same manner.		
10.6	Place folded sheet at both side of the incision area.	Abdomen	
10.7	Secure each side of the drape with two towel clips ensuring the sharp end of towel clip do not injure patient.		
10.8	Reinforce the initial drape area at the upper end and lower portion with another drape to add to the thickness of the drape.		

- 10.9 Place an adhesive plastic drape over the incision site before and after formal draping if required.
  - 10.9.1 Assist in applying adhesive drapes as surgeon's preference.
  - 10.9.2 Hold the sterile drape taut with the assistant or surgeon.
  - 10.9.3 Pull off the paper backing towards the person who is pulling and hand it off to the circulating personnel.
  - 10.9.4 Lower the drape to operative site area and position with the adhesive side down.
  - 10.9.5 Always avoid contamination of gloves.



## 10.10 **Head Surgery:**

10.11 Place four or two towels under the head (Number of towels depend on surgeon's preference).

The towel is to have adequate thickness to prevent blood soaking through and good coverage of sterile area.

- 10.12 Wraps one or two towels around the head and secure. Towel clips are not used if X-rays will be taken during operation.
- 10.13 Hand one end of folded medium sheet to the assistant.

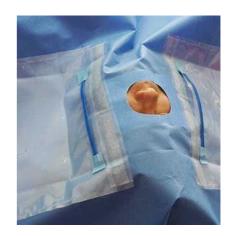
Unfold and secure it below the head (over the end of operating table head, On the edge of the previously placed towel).

- 10.14 Place a fenestrated sheet according to surgeon preference.
- 10.15 If a split sheet is used, the tails are placed toward head end of operating table, draped around patient's head, and secured with towel clips.



## 10.16 Face Surgery:

- 10.17 Exposure of the entire face is based on the surgeon's preferences. Although the procedure may be one-sided of the face, the surgeon might require exposure for skin line comparison.
- 10.18 The circulating nurse holdup the patient's head.
- 10.19 The surgeon places a drape under the head, and then the towel is pulled over each side of the face, the forehead, or the hairline and secured with a clip. Thus, the required area of the face is left exposed.
- 10.20 Place a medium sheet just below site. This sheet must overlap the one under the head.
- 10.21 A fenestrated drape may be placed to complete draping.
- 10.22 Cover the foot of the table with a single sheet.





### 10.23 Eye Surgery:

- 10.24 After skin preparation, Protect the unaffected eye with a sterile eye pad. Then, start the draping procedure.
- 10.25 Circulating nurse holdup the patient's head.
- 10.26 Scrub nurse hand over to surgeon two or three towels according to surgeon preference.
- 10.27 Surgeon drape patient: A single towel is wrapped around the head, exposing only the eyebrow and the operated eye, and secured with a clip without applying pressure on the eye.



- 10.28 Hand over to surgeon four towels and towels clips to isolate operative site or give self-adhering aperture drape according to surgeon preference.
- 10.29 Cover the patient and the rest of the table below the surgical site with sheet.
- 10.30 If local anesthesia is used: Lift the drapes over the patient's nose and mouth to allow breathing freely.

## 10.31 Ear Surgery:

- 10.32 Drape patient as same procedure as face or eye operation, except that only ear is exposed.
- 10.33 Turn the head toward unaffected side.



## 10.34 Chest and Breast Surgery:

- 10.35 Arm is held up following skin preparation.
- 10.36 Under the patient's arm, Cover the arm board with a medium sheet and spread the sheet under the side of the chest and shoulder.

The distal part of the arm may be wrapped in a sterile stockinette so that the arm can be handled during surgery.

- 10.36.1Drape the patient's body with a sterile medium sheet.
- 10.37 Hand up towels clips 5 or 6 as required to apply breast sheet so axilla is left exposed if axillary dissection is expected or expose breast only where no axillary dissection.



## 10.38 **Shoulder Surgery:**

- 10.39 Arm is held up following skin preparation.
- 10.40 Place towel over the chest covering the neck.
- 10.41 Place medium drape under arm and shoulder.
- 10.42 The surgeon executes the procedure using towels and secures them with towel clips.
- 10.43 Surgeon's wrap the arm securing it with a sterile bandage. Scrubbed member of the team relieves person who has been holding arm.
- 10.44 Cover the rest of the patient including anesthesia screen with a large sheet.



## 10.45 Elbow Surgery:

- 10.46 Arm is held up following skin preparation.
- 10.47 Place medium drape across the chest and under the arm.
- 10.48 Surgeon places a towel around lower arm, to limit area of site of operation, and secure it with a towel clip. Then Hand over to surgeon four towels to isolate upper (proximal) arm and securing the towels with a towel clips.
- 10.49 Pull stockinet over hand or surgeon wrap towel hand with a towel securing it sterile bandage. The circulating nurse is relieved of holding arm. The arm is laid on arm board.
- 10.50 Place large sheet on top of the arm covering the chest including the anaesthesia screen.
- 10.51 Cover the rest of patient's body with another large sheet.



## 10.52 Hand Surgery:

- 10.53 Arm is held up following skin preparation.
- 10.54 Place towel under arm board.
- 10.55 Pull stockinet/sterile gloves over hand the arm is laid on arm board.
- 10.56 Place large sheet to cover patient including anesthesia screen.



## 10.57 Perineum: In Lithotomy position:

- 10.58 Place one medium drape under the buttocks.
- 10.59 Cover each leg on stirrup by sliding one legging sheet.
- 10.60 Place one large sheet over pubic area towards the abdomen.



## 10.61 **Hip Surgery:**

- 10.62 Leg is held up following skin preparation.
- 10.63 Place large drape under the leg up to the buttocks.
- 10.64 Surgeon wrapped foot and leg and secure with sterile bandage.
- 10.65 Surgeon outlines the incision area with towels securing it with towel clip or sew it.
- 10.66 Place large sheet above operative area and over anesthesia screen.
- 10.67 Place sterile adhesive drape over incision area and towels according to surgeon's preference.



### 10.68 Knee Surgery:

10.69 Leg is held up following skin preparation.

10.70 Place medium sheet under the leg up to buttock.

10.71 Surgeon outlines sterile area placing towels around the thigh and secure with towel clips.

10.72 Surgeon wraps the leg with towel securing it with sterile bandage.

10.73 Place large sheet above the operative area and cover the patient towards the head.



## 10.74 Lower Leg and ankle:

10.75 Leg is held up following skin preparation.

10.76 Place large sheet under leg.

10.76.1Surgeon isolates the leg area of intended incision and secure with towels and towel clip.

10.76.2Surgeon wrapped the lower part of foot with towel or sterile gloves.

Sterile team relieves the person holding the leg.

10.76.3Place large sheet over the patient toward the head of the patient.



## 10.77 Foot Surgery:

10.78 Foot is held up following skin preparation.

10.79 Place large sheet on table, under foot.

10.80 Enclose foot stockinet/gloves sterile team relieves person holding the leg.

10.81 Place Large Sheet Over the Foot toward patient's head.



### 10.82 Mayo Stand Draping

10.83 picks up the cover of Mayo stand	
10.84 stabilizes the table with one foot	
10.85 Slide Mayo stand drape over the nearest end of the stand.	
10.86 The circulator assists by pulling the cover over the stand	
11 C-Arm Draping (X-ray)	
11.1 Prepare material, including an extra pair of gloves and a C-arm drape.	
11.2 Wear double gloves while draping the Carm.	
11.3 Ask the radiographer to raise the C-arm height to prevent the drape from touching the floor.	
11.4 Ensure glove hand is cuffed, to prevent contamination, and Cover the X-ray tube and image intensifier; start with the upper part first.	
11.5 Slide the long tube drape over the C-holder and apply it to the C-arm machine.	
11.6 Remove the second pair of gloves and replace them with a new pair.	