HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Operating Room		
Document:	Internal Policy and Procedure		
Title:	Safe Practice in the Operating Room		
Applies To:	All Surgeon and Operating Room Staff		
Preparation Date:	January 05, 2025	**Index No:**	OR-IPP-025
Approval Date:	January 19, 2025	**Version :**	5
Effective Date:	February 19, 2025	**Replacement No.:**	OR-DPP-025(4)
Review Date:	February 19, 2028	**No. of Pages:**	4

1. PURPOSE:

1.1 To minimize preventable physical injury.
1.2 To minimize risk of harm to patients.
1.3 To minimize human error and environmental deficiencies.

2. DEFINITIONS:

2.1 **Safe Practice in the Operating Room** – written policies and procedure provide a reference base for orientation, in – service, continuing education quality improvement and safety programs. Operating suites and surgical are potentially, high risk location.

3. POLICY:

3.1 It is essential to provide a safe and protected environment for the patient, staff and visitors to the theatres.
3.2 Safe practice within the operating theatre should be used in conjunction with the safety programs outlined in the policies of the hospital.

4. PROCEDURE:

4.1 **Burns – Chemical:**
- 4.1.1 Apply properly skin preparation solution.
- 4.1.2 Prepared solutions or degreasing agents shall be applied to the skin without contacting any placed electrode.
- 4.1.3 Disinfectant solutions should be used in the appropriate dilution.
- 4.1.4 Mattresses or hypo/hyperthermia blankets should be wiped with alcohol after routine disinfection.
- 4.1.5 A layer of fabric/sheet should always be placed between the patient and the mattress material.

4.2 **Burns – thermal:**
- 4.2.1 Attach to each hypo/hyperthermia unit the complete operating instruction and temperature ranges.
- 4.2.2 Always use a temperature probe locator as per manufacturer's instructions. The temperature setting should be properly monitored and documented.
- 4.2.3 Inspect the hypo/hyperthermia blankets for damaged prior to each use and if damaged, discard.
- 4.2.4 Turn off the endoscopic equipment when not in use.
- 4.2.5 Use ice packs to cool patients, should always be wrapped in fabric.

4.3 **Mechanical Injuries:**
- 4.3.1 Prevent pressure areas; the operating table mattress should be thick enough.
- 4.3.2 Cover the height of arm board level with the operating table mattresses to prevent undue strain on the patient's nerves and joints, etc.
- 4.3.3 Protect pressure points by adding padding.
- 4.3.4 Check should be made to ensure that the skin has not been damaged due to repositioning of the operating table or due to lengthy procedures.

4.3.5 Keep all members of the surgical team aware about the patient at all times. They must not lean against them or place heavy instruments on them that may cause undue pressure.

4.3.6 Attachment of the table must be securely applied.

4.4 **Personnel Safety:**

4.4.1 Aware personnel working within the Operating theatre suite must be made through continuing education, of specific health hazards within their working environment.

4.4.2 Immunization for e.g. Hepatitis B is available for all Operating Theatre personnel through the Staff Clinic.

4.4.3 Report incident must be completed whenever an injury occurs. It is compulsory that injured staff attend Staff clinic as soon as possible after the incident.

4.5 Treat all body substances as potentially infectious. Protective attire is provided:

4.5.1 Report all blood/body fluid splashes in the eye and/or to mucous membrane. The patient involved should be serologically screened for Hepatitis B and HIV viruses.

4.5.2 Used/contaminated needles should be avoided.

4.5.3 Dispose the sharps in an appropriate receptacle that is ideally puncture-proof.

4.6 **Fire Explosion and Safety:**

4.6.1 Provide operating room personnel with adequate orientation and on-going education on fire management and evacuation techniques. Operating Room personnel must be able to state:

4.6.1.1 Location of Fire Alarms.

4.6.1.2 Location of Fire Exits.

4.6.1.3 Location of Fire-Fighting Equipment.

4.6.1.4 Location of the appropriate extinguisher for potential operating room electrical fires, combustible.

4.6.1.5 Evacuation routes.

4.6.1.6 Steps in Reporting a Fire.

4.6.1.7 The initial steps in dealing with a fire:

4.6.1.7.1 Personnel should identify potential fire hazards such methacrylate (bone cement), electrosurgical devices (diathermy), draping materials, lasers, toxic smoke from petroleum based foam padding, and endoscopic light cables.

4.6.1.7.2 Evacuation routes should be unobstructed.

4.6.1.7.3 Fire extinguishers should be clearly marked with the most recent date.

4.6.1.7.4 The Head Nurse or designee should ensure that all fire extinguishers have been checked.

4.6.1.7.5 All anesthetic machines should be connected to a scavenging system to remove waste gases. A preventive maintenance program should be in place.

4.6.1.7.6 A close system disposable suction apparatus and tubing should be used.

4.6.1.7.7 Vacuum outlets and devices should be of adequate amounts, and be complete and operational with sufficient pressure.

4.6.1.7.8 Closed liquid dispensing units should be used to transfer anesthetic agents into vaporizes with a minimum of leakage.

4.6.1.7.9 Doors to OR must be kept closed to maintain positive pressure and prevent air turbulence.

4.6.1.7.10 Leaks in medical gas connectors should be repaired immediately.

4.7 **Radiation Safety:**

4.7.1 Radiological protective device and apparel, e.g. lead apron, thyroid protective collars should be protective for all of the health care team members and patients are required.

4.7.2 Thyroid protective collars should be provided for surgeon performing procedures where they are working directly near fluoroscopic fields, e.g closed urological or pacemaker procedure.

4.7.3 Lead aprons should cover the sternum, chest and abdomen.

4.7.4 Surgeons injecting contrast medium should be able step behind a lead screen or other radiological protection for filming.

4.7.5 All personnel working on a regular basis in the operating theatre suite be issued with a radiation detector (film badge) that will be screened and upgraded every 3 months.

4.7.6 Only radiology personnel should operate radiological equipment in the operating room.

4.7.7 Radiology technicians should receive instruction in aseptic technique and operating room practices to prevent potential contamination of the sterile field.

4.7.8 The theatre staff should assist the radiology technician in maintaining a sterile field/all of the surgical team should remain vigilant.

4.7.9 Appropriate warning signs should be posted where radiation danger.

4.7.10 When X – rays are anticipated, nursing staff should ascertain whether their patient is pregnant and provide the necessary precautions.

4.7.11 Pregnant personnel in the first trimester should avoid areas of radiation.

4.7.12 Appropriate hangers should be provided for the lead aprons. Aprons should be maintained in good condition, they should be X – ray annually to detect crack, and defective aprons should be replaced.

4.8 **Electrical Safety:**

4.8.1 Each electrical device shall bear a sticker identifying it as safe to use in the operating theatre.

4.8.2 Each electrical device should have an up to date record of preventive maintenance and repairs.

4.8.3 All new equipment should be inspected by the Biomedical Engineering Department, prior to its use within the operating theatre suite.

4.8.4 Questionable and faulty equipment should be removed and repaired as soon as possible.

4.8.5 Electrical extension cord should be avoided. Proper electrical cords should be attached to equipment when the cords are too short.

4.8.6 All equipment must be tested prior to use by the theatre personnel.

4.8.7 The electrical biomedical department should be consulted in the decision to replace or repair electrical equipment.

4.9 Ensure the cord is long and flexible enough to react between the sterile field and ESU machine. It must be free of kinks and bend.

5. MATERIALS AND EQUIPMENT:

5.1 PPE
5.2 Skin Preparation Solution
5.3 Towel, Blankets
5.4 Ice Packs
5.5 Lead Apron
5.6 Fire Extinguisher
5.7 Spill Kit
5.8 OVR Form

6. RESPONSIBILITIES:

6.1 Nurse
6.2 Anesthesia Technician
6.3 Anesthesiologist
6.4 Surgeon

7. APPENDICES:

N/A

8. REFERENCES:

8.1 Kingdom of Saudi Arabia, Ministry of Health, Baish General Hospital, 2018.

9. APPROVALS:

	Name	Title	Signature	Date
Prepared by:	Ms. Naimah Naif Al Salem	Head Nurse of the Operating Room		January 05, 2022
Prepared by:	Mr. Hamed Matar Alanazi	Head of Anaesthesia Technician		January 05, 2025
Prepared by:	Dr. Abdulghani Ibrahim	Head of the Operating Room Department		January 07, 2025
Reviewed by:	Mr. Sabah Turayhib Al - Harbi	Director of Nursing		January 08, 2025
Reviewed by:	Mr. Abdulelah Ayed Al Mutairi	QM&PS Director		January 09, 2025
Reviewed by:	Dr. Tamer Mohamed Naguib	Medical Director		January 12, 2025
Approved by:	Mr. Fahad Hezam Al - Shammari	Hospital Director		January 19, 2025