



HEALTH HOLDING

HAFER ALBATIN HEALTH
CLUSTER
MATERNITY AND
CHILDREN HOSPITAL

Department:	Operating Room		
Document:	Departmental Policy and Procedure		
Title:	Handling Electrosurgical Unit (ESU)		
Applies To:	All Surgeon and Operating Room Nurse		
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1. PURPOSE:

- 1.1 To coagulate tissue in order to prevent or control bleeding.
- 1.2 To cut across tissue and coagulate tissues simultaneously.

2. DEFINITIONS:

- 2.1 **Handling Electrosurgical Unit (ESU)** – it is a passage of high frequency oscillating electric currents through tissue between two electrodes to coagulate or cut tissues.

3. POLICY:

- 3.1 All electrical surgical unit machines should have the manufacturer operational instruction booklet/manual attached to each machine.
- 3.2 For the safety of the patient and personnel, follow instructions for use and care of the machine or in the manual provided by the manufacturer that accompanies each electrosurgical unit.
- 3.3 All the regular service and maintenance should be recorded. Any default should be reported to the Nursing Supervisor and Head Nurse of Operating Room.
- 3.4 Any ESU machine which is found default or unused should be labelled "Do not use. Out of order."
- 3.5 The inactive grounding pad/plate must be properly placed and connected to avoid electrical burn to the patient.
- 3.6 The diathermy pad or plate should be applied on muscular, dry, clean site where no pooling of solution will take place. Diathermy pad/plate cannot be applied on the following sites:
 - 3.6.1 Excessive adipose tissue, scar tissue.
 - 3.6.2 Excessive hairy areas.
 - 3.6.3 Sites for X – ray exposure.
 - 3.6.4 Sites of implanted prosthesis example hip prosthesis.
- 3.7 All patients for surgery should not have any metal items such as jewelry. Example: rings, earrings, watch etc.
- 3.8 All patients must be checked for any electrosurgical burns on completion of surgery.
- 3.9 No solutions or any equipment to be placed on top of Electrical Surgical Unit machine.
- 3.10 Unless disposable, reusable cords should be inspected by the biomedical engineering department periodically for electrical integrity.
- 3.11 The ESU pad/plate must only be applied after patient has been positioned.
- 3.12 The Scrub Nurse must take care of electrode tip clean, dry and visible all the time and safely kept in a container in the sterile field when not in use.
- 3.13 The surgeon and scrub nurse must be informed to the amount of power used in ESU machine.
- 3.14 The circulating staff must announce loudly the power is set and at any time when there is change, increase or decrease of power as requested by surgeon.
- 3.15 If there is any injury related to ESU, to write an incident report and report immediately to surgeon and Nursing Supervisor, Head Nurse of Operating Room.

4. PROCEDURE:

- 4.1 Check the machine for good working order:
 - 4.1.1 Inspect the electrical cables for cracks, fraying or damaged insulation.
 - 4.1.2 Check that all connection is secure with no loose screws.
 - 4.1.3 Check the power point to ensure no visible damage is present prior to use.
- 4.2 Alert the anesthetist for the use of ESU.
- 4.3 Select a suitable site for application of ESU plate close to the operative site if possible.
- 4.4 Check the skin area for hair, scar tissue, excessive adipose tissue, bony prominences.
- 4.5 Place ESU pad on muscular and dry area.
- 4.6 Ensure that application of the ESU pad is smooth; wrinkle free and in full contact with the patient skin.
- 4.7 Place the ESU machine opposite. Scrub nurse but not close enough to contaminate the sterile field.
- 4.8 Scrub nurse will hand the end of conductor cord off sterile field to the circulating nurse who attaches it to the ESU machine.
- 4.9 Ensure the cord is long and flexible enough to reach to the sterile field and ESU machine. It must be free of kinks and bend.
- 4.10 Select cutting, coagulation or bipolar according to surgeon's preference.
- 4.11 Scrub nurse will test the active diathermy pencil is functioning.
- 4.12 Place the foot switch conveniently by the surgeon's foot if it is required. Cover the foot switch if procedure involves irrigation.
- 4.13 Check the patient for electrosurgical burns on completion of surgery.
- 4.14 Document in the nurse's notes on the skin integrity of the pad/plate site before operation and after operation.

5. MATERIALS AND EQUIPMENT:

- 5.1 Electrical Surgical Unit machine
- 5.2 ESU cord
- 5.3 ESU pen
- 5.4 ESU Pad/Plate
- 5.5 ESU Electrode Tip
- 5.6 Blade
- 5.7 Ball Needle

6. RESPONSIBILITIES:

- 6.1 Scrub Nurse
- 6.2 Circulating Nurse
- 6.3 Head Nurse
- 6.4 Surgeon

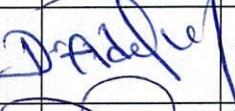
7. APPENDICES:

N/A

8. REFERENCES:

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

9. APPROVALS:

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