

Section: Division of Nursing  
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PROCEDURE  
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HACKETTSTOWN REGIONAL MEDICAL CENTER

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OR  
(Scope)

**TITLE: ELECTRICAL SURGICAL UNIT USE (ESU)**

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PURPOSE: To identify nursing responsibilities during performance of procedure requiring the use of the ESU.

SUPPORTIVE DATA: The use of the ESU during surgery allows for control of hemostasis.

EQUIPMENT LIST: Available in Room:  
1. ESU generator  
2. Dispersive electrode (grounding pad)  
3. Disposable active electrode tip  
4. Sterile bipolar forceps and cord (if using bipolar)

CONTENT:	<u>PROCEDURE STEPS:</u>	<u>KEY POINTS:</u>
	1. Assemble equipment.	
	2. Inspect electrical cord on ESU for integrity.	
	3. Open active electrode and tip onto sterile field aseptically.	Both items are sterile.
	4. Connect unit and verify it is functioning.	- If patient is under mac or regional anesthesia, explain the application of grounding pad prior to applying. - Avoid areas which have metal parts, such as hips
	5. After patient is anesthetized, choose location for grounding pad. (No grounding pad if <u>only</u> using bipolar mode.) Assess condition of skin chosen for pad placement.	- Avoid hairy surface. - Avoid scar tissue. - Avoid bony prominence - Place as close to surgical site as possible; place over clean dry skin; place over large muscle mass - usually thigh.
	6. Inspect pad and cord for intactness and integrity of connections and moistness of gel.	- Defective pad or cord may cause injury to patient. Dry gel is not a conductive.
	7. Prior to placing pad on patient, turn unit on to activates the R.E.M. (return electrode monitoring) system.	- When patient is properly grounded, R.E.M. visual and or audible alarms will shut off.
	8. Connect grounding pad cord to unit a "patient plate".	
	9. Ground patient pressing pad firmly for full contact.	- Avoid gaps, turned edges, or tenting effect.

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| 10. Post draping take end connection of active electrode cord which has been dropped off sterile field and connect at "Monopolar" or "Hand switch". Connect bipolar at bipolar receptacle on unit. | - Make sure bipolar cord is not inserted into "monopolar" or "hand switch". |
| 11. Ask surgeon for desired setting and confirm verbally.  | Assures no misunderstanding or miscommunication.                            |
| 12. Position unit so electrical cord lies flat.  | Tripping hazards kept to a minimum.   |
| 13. For use of bipolar, place foot control by surgeon's foot.  | Bipolar mode can only be operated with foot control pedal.                  |
| 14. At conclusion of case, remove grounding pad and assess skin condition.   |   |

DOCUMENTATION:

1. On electronic record, document the following:
  - a. ESU number
  - b. Site of grounding pad
  - c. Condition of the patient's skin prior to application of and after removal of the grounding pad
  - d. ESU settings