Safe monopolar electrosurgery

1. Place the patient in an electrically insulated position

- Place the patient on a dry and electrically insulated OR table pad.
- Ensure that the arm support cover is insulated.
- Remove any jewelry (piercings, rings, chains, watches, bracelets) and/or removable dental prostheses; taping over jewelry does not suffice.
- Bend the patient’s arms and legs or wrap them in towels so as to prevent contact with the body; avoid skin-to-skin contact in areas of loose skin or breast folds (by covering the areas with dry surgical gauze).
- The patient must not touch any electrically conducting objects (drip stands, hoses).

2. Selecting a suitable patient plate

- Self-adhesive split patient plates are preferable to single patient plates and silicone electrodes.
- A suitable patient plate has to be used for infants.
- We recommend NESSY D, which can be placed without orientation towards the operation field.
- Please only use split patient plates if possible, as only these can be monitored by the safety system.

3. Selecting the position for the patient plate

- It is possible to position the patient plate on the patient’s thigh, upper arm or flank.
- Attach the patient plate as close as possible to the operating field while maintaining a minimum distance of 15 cm.
- The monopolar current should not pass through constricted areas of the body (e.g. elbows, knees).
- Position the patient plate above electrically conducting tissue (muscle tissue) whenever possible.
- Do not place the patient plate on top of fat tissue, bones/joints, skin folds or on the patient’s head.
- Attach the patient plate to healthy tissue if possible. Avoid scars, hemorrhages, tattoos.
- The patient should not lie on top of the patient plate, cables or the cable connector.
- When lifting and moving the patient make sure the patient plate and the cable do not detach and the patient is not laid down on top of them.

Patients with active and passive implants

- In cases of patients with a cardiac pacemaker or any other kind of conductive implant use bipolar instruments wherever possible.
- When monopolar instruments are used, attach the patient plate far enough away from the implant to prevent the current path of the patient plate from passing over the implant. Minimize the effect number (voltage) and output limitation.
4. Preparing the application side

☑ Do not attach the patient plate to areas with hair. Shave the patient plate application site beforehand.
☑ The patient plate application site must be dry and free of skin oil.

5. Attaching the patient plate correctly

☑ Do not trim the patient plate.
☑ Always attach oblong patient plates with the long side directed towards the operating field.
☑ Make sure the entire surface of the patient plate is attached to the patient’s skin and is wrinkle-free; avoid air bubbles.
☑ For patients wearing antithrombosis stockings, the patient plate can be attached underneath one of them with the connector and cable exposed.
☑ Self-adhesive patient plates can only be used once.

6. Avoiding ignition of combustible substances

☑ Disinfectants must not flow underneath the patient.
☑ Wait until the disinfectant has been dried off and the combustible gas has evaporated before covering the patient.
☑ Avoid inflammable and oxidizing gases in the surgical field (e.g. anesthetic or endogenous gases).

CAUTION: This checklist does not replace the instructions for use.
Contact the responsible Erbe representative for initial instructions on how to use the device.
If you are interested in Erbe plus academy training courses, please contact our training department:
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