AREA OF APPLICABILITY: Wisconsin National Primate Research Center (WNPRC)

PURPOSE: The purpose of this SOP is to describe the procedure for preparing animals for surgical procedures.

PERSONS RESPONSIBLE: Veterinary Staff

FREQUENCY: As needed

DOCUMENTATION: None

MATERIALS:
• Saline
• Electric clippers
• Vacuum
• Dry gauze
• Tape or reusable ties
• Chlorhexidine gluconate or Betadine
• Towels
• Sterile preparation pack, 70% alcohol, and povidone-iodine solution OR a DuraPrep™ OR Chlorascrub™ swab
• Anesthesia monitoring equipment (e.g. pulse oximeter, temperature probe/thermometer, respiratory monitor, etc)
• Absorbent pad
• Appropriate personal protective equipment (PPE)
• SOP 3.02 – Inhalant Anesthesia Induction, Maintenance, and Recovery
• SOP 3.11 – Basic Surgery Setup
• SOP 3.13 – Intravenous Catheter Placement and Use

PROCEDURE:

1.0 Prepare surgical suite as described in SOP 3.11.

2.0 Induce animal for surgery as described in SOP 3.02.

3.0 Position the animal on surgical preparation table. A towel may be put over the animal to help maintain body temperature.
4.0 Place intravenous catheter as described in SOP 3.13.

5.0 Shave the surgery site (leaving wide margins) with an electric clippers and vacuum hair from animal and preparation table.

6.0 Perform an initial preparation of the surgical site:

   6.1 Apply a small amount of chlorhexidine gluconate or betadine to a 3x3 gauze moistened with water. Begin in the center of the surgical area and scrub gently in a circular motion working outward. This should be done a minimum of 3 times, using a new moistened 3x3 gauze each time, until the area is clean.

   6.2 Rinse area with an alcohol gauze and allow to dry.

   6.3 Change outer gloves before proceeding if gloves are soiled.

7.0 Prepare to move the animal from the surgical preparation area to the surgery suite.

   7.1 If the animal’s vitals are stable, temporarily remove any monitoring devices. If not, monitoring devices may need to remain in use when relocating animal. Contact a veterinarian if there are concerns about the animal.

   7.2 If intravenous fluids have already been started, disconnect the fluid line from the catheter and cap the catheter and the end of the fluid line. Flush the catheter with a small amount of saline to prevent clot formation. Alternatively, an assistant may carry the bag of fluids with the animal rather than disconnecting the tubing.

   7.3 If isoflurane and oxygen were used during animal preparation, disconnect the anesthesia hoses from the endotracheal tube

8.0 Relocate the animal to the surgical area by carrying it or using a gurney. Position the animal on the surgery table as required based on the procedure. Do not disrupt the placement of the endotracheal tube when moving the animal, and minimize contamination of the area prepared for surgery.

9.0 Attach the anesthesia hose to the endotracheal tube, and turn on the oxygen and isoflurane to the appropriate flow rates.

10.0 Attach all monitoring devices (pulse oximeter, respiratory monitor, thermometer, and any additional devices as needed). Attach fluid line and start fluid pump as described in SOP 3.13.

11.0 Place Bair hugger blanket on each side of the animal (air vents towards animal) and secure ends to the front of the table with tape. The unit should not be turned on until the animal has been surgically draped.
12.0 If needed, secure anesthesia hoses to the surgery table with tape. Secure the endotracheal tube by placing a long piece of tape going across the table that passes through the mouth. Also secure wrists and ankles of the animal to the table with tape or reusable ties.

13.0 Sterile preparation of surgical site:

13.1 If using a sterile preparation pack, follow these steps:

13.1.a Open a bottle containing 70% isopropyl alcohol and a bottle containing povidone-iodine solution and set them next to the sterile preparation pack.

13.1.b Use aseptic technique to open a sterile preparation pack containing sterile gauze.

13.1.c Use aseptic technique to place a sterile glove onto dominant hand, leaving the other hand non-sterile.

13.1.d Pick up a sterile gauze from the pack with the sterile-gloved hand. Apply povidone-iodine from the bottle to the gauze, using the non-sterile hand. Avoid touching the tip of the bottle to the gauze.

13.1.e Using the method described in section 6.1, paint the surgical area with a sterile gauze soaked with povidone-iodine. Repeat two times.

13.1.f Pick up a sterile gauze from the pan with the sterile-gloved hand. Apply alcohol from the bottle to the gauze, using the non-sterile hand. Avoid touching the tip of the bottle to the gauze.

13.1.g Use method described in section 6.1 to paint the area one time with alcohol gauze. Do not scrub. Let the area dry.

13.2 If using a prepackaged Duraprep™, follow these steps:

13.2.a Open package and remove the Duraprep™ without touching the sterile pad.

13.2.b Depress the top of the handle and let the iodine and alcohol mix and saturate the sponge pad.

13.2.c Use the method described in section 6.1 to paint the entire surgical area once and discard. Let the area dry.

13.3 If using a prepackaged Chlorascrub™ swab:

13.3.a Open the packaged and remove the Chlorascrub™ swab without touching the sterile pad.
13.3.b Use the method described in section 6.1 to paint the entire surgical area once and discard. Allow area to dry.

Approved by: Saverio Capuano III 30 Oct 2016
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