



**TITLE: NHP Preparation for Aseptic Surgical Procedure**

**PURPOSE:** To establish proper procedures for preparing NHP for aseptic surgery

**REVIEW/REVISION:** Permanent amendment/revisions to this SSP must be presented to the IACUC for review before implementation and should be developed by UAC, the Surgical Attending Veterinarian and PI together.

**EFFECTIVE DATE:** 2/24/05; **Revised/Re-Approved:** 8/25/06, 11/2/06, November 1, 2007

**PERSON(S) RESPONSIBLE:** During the Pre-Surgery Conference, an individual(s) will be identified as responsible for preparing the individual NHP for the aseptic surgical procedure. This individual(s) must be one of the following: BSS Technician, Surgical Attending Veterinarian, PI or Research Personnel.

The Surgical Attending Veterinarian must be present before the surgical preparations can be initiated.

**FREQUENCY OF PROCEDURE:**

For every survival surgery scheduled

**DOCUMENTATION OF PROCEDURE:**

Surgical Record Sheet  
Anesthesia Record

**MATERIALS REQUIRED:**

|                             |                     |                           |
|-----------------------------|---------------------|---------------------------|
| Alcohol                     | EKG pads (3)        | Needle                    |
| Anesthesia face mask        | Eye lubricant       | One liter rebreathing bag |
| Anesthesia Machine          | Gauze sponges (4x4) | PPE                       |
| Anesthesia record           | Gloves              | Porous tape (½ inch)      |
| Animal prep/transport table | Heating pad         | Scale                     |
| Betadine scrub and spray    | Induction Agent     | Sheet                     |
| Breathing tubes             | Intubation tube     | Stethoscope               |
| Catheter                    | Isoflurane          | Surgical Record           |
| Clippers                    | IV bag              | Syringe                   |
| Disposable underpads (4)    | IV drip line        | Thermometer               |
| EKG gel                     | IV pole             | Transport table           |

**PROCEDURES:**

1. Draw up in a syringe the pre-calculated dose of a induction agent that has approved by the Surgical Attending Veterinarian
2. Place two under pads on top of the transport table and place the induction agent and a sheet on the bottom shelf of the transport table
3. Place heating pad on low on prep table and cover with two disposable underpads
4. Put on PPE per NHP-SSP #703-08-05 and UAC SOP #



5. Enter NHP home room with transport table
6. Squeeze NHP in cage and administer the preanesthetic drug IM
7. When NHP reaches Stage 1 plane of anesthesia (conscious but disoriented) remove NHP from cage and place on transport table and cover with a sheet.
8. Remove one pair of shoe covers and one pair of gloves per SOP #
9. Transport NHP to 1229. Remove NHP from transport cart and place on scale to obtain weight.
10. Place NHP back on transport cart.
11. Spray scale with clidox
12. Transport NHP to the NHP prep room in room 1236
13. Place NHP on prep table
14. Write weight on Surgery Record per SOP# 2733.01
15. Attach mask to the breathing tubes on anesthesia machine and place over NHP's nose. Turn isoflurane vaporizer to 5%. Turn oxygen on and place on two liters of oxygen
16. Place NHP on vitals monitors
17. Perform physical exam including:
  - a. A stethoscope is used to auscultate the lungs and listen to the heart for any signs of abnormalities.
  - b. Ears, eyes, nose, mouth and body are visually examined for any abnormalities.
    - 1) put in eye lube in eyes if needed
    - 2) put lidocaine cream in ears if stereotactic head devise is used.
  - c. Check color of gums and capillary refill time.
  - d. A temp-away is applied to the tip of the thermometer and a rectal temperature is taken.
  - e. Record findings on Surgical Record Sheet per SOP# 2733.01
  - f. remove collar
18. Shave the anterior sides of both hands and left back foot. Place EKG gel on the backs of three EKG pads and place gel side down on shaved anterior areas both hands and foot. Use 1/2 inch porous tape to secure the pads to the hands and foot
19. Place a catheter in the right or left cephalic vein, tape in place with 1/2 inch porous tape, attach the catheter to an IV drip line that has been connected to an IV bag. Administer fluid at a rate of 10mls per kg
20. Intubate NHP per NHP-SSP #705-08-02 and SOP #
21. Position animal as needed for specified surgical procedure.
22. Shave area where the incision will be made and continue to shave large area surrounding this site.
23. Perform antiseptic scrub alternating alcohol and betadine.



- a. Place 4x4 gauze on incision site and saturate with alcohol. Gently cleanse the whole area with the saturated 4x4 working from the incision site out and not crossing back over the area already cleansed.
  - b. Discard 4x4 and place new 4x4 on incision site and saturate with betadine. Repeat cleansing procedure described in 6a.
  - c. Repeat this procedure two more times alternating alcohol and betadine scrub.
  - d. Place 4x4's along entire incision site and saturate with betadine scrub.
24. Turn off the IV drip. Remove the IV bag from the IV pole and place it on the animal prep table with the NHP.
  25. Turn off the isoflurane and the oxygen on the anesthesia machine. Disconnect NHP from the anesthesia machine by disconnecting the breathing tubes from the intubation tube
  26. Transfer animal to surgery table in operating room,
  27. Reconnect NHP to the anesthesia machine in the sterile surgery room
  28. Attach NHP up to the vitals monitor by connecting the EKG leads to the EKG pads, placing an SPO2 monitor on the tongue, ear or thumb and placing the thermometer in the NHP's rectum. Monitor vital signs on the Anesthesia Record per SOP# 2734.01
  29. Remove 4x4"s on incision site and spray area with betadine scrub.

Monitor NHP under anesthesia per SOP #2727

#### **JUSTIFICATION:**

The Institutional Animal Care and Use Committee (IACUC) determined that comprehensive individual Non-Human Primate Standard Surgical Practices (NHP-SSP) should be written for: Surgical Prep - This includes not only the actual pre-operative preparation of the animal, but also required prep for participants; Anesthesia Induction - Standard induction procedures should be described; Post-Operative Recovery - this should specify criteria for extubation as well as post-operative monitoring, placement of the animal, and provision for emergency care.

Authority line - During pre-op procedures and immediate post-operatively, until animal is able to sit upright, the Surgical Attending Veterinarian will be present and have decision making authority. The Surgical Attending Veterinarian may not be physically present in the room during surgery, but is on call. During surgery, the Surgeon is responsible for procedures going on in the surgical theater. Specific allocation of duties for each NHP-SSP will be determined at the pre-surgery conference and will be designated to the Surgical Attending Veterinarian, PI, BSS Clinical Staff, or Research staff.