

RODENT ASEPTIC SURGICAL TECHNIQUE IN-PERSON TRAINING
UNIVERSITY OF SOUTH FLORIDA
COMPARATIVE MEDICINE

Attendee Name: _____
Print Sign Date

Discuss:

- ___ AALAS LL modules, CM SOP 027 & 412, Guide, AWA USDA, IACUC Principles XII, XIII, XV, & XIX
- ___ **Aseptic** technique (i.e., “free of pathogenic microorganisms”)
- ___ **Minor surgery** (does not expose a body cavity; causes little or no physical impairment; includes wound suturing, peripheral-vessel cannulation, subcutaneous implants) vs **Major surgery** (exposure of the cranial, abdominal, or thoracic cavities; procedures that cause physical or physiological impairment or extensive tissue dissection or transection, including stroke surgery, brain cannulas)
- ___ Appropriate recordkeeping/CMDC forms used for each species, documenting appropriate analgesic administrations (e.g., preemptive, post-operative)
- ___ Definition of the **sterile surgical work area** as delineated by sterile drapes, the inside of an opened sterile pack, front of a surgeon’s sterile gown (not above shoulders or below hips), and **sterile field** at the operative site
- ___ Identification & delineation of **pre-op preparatory area**, **surgical station**, and **recovery/post-op area**
- ___ **Preparation of the patient’s skin** ((center out, paint with disinfectant scrub, e.g., Avagard, on entire depilated/shaved area))
- ___ Preparation of the **surgeon**: put on cap, face mask, shoe-covers, then scrub hands ~5-6 minutes, then step into gown and once tied in, put on sterile gloves
- ___ Preparation of the **surgical table work area** prior to patient arrival (e.g., back table prep, pack opening, supplies)
- ___ **Sterile draping** of the patient by the sterile gloved-in surgeon
- ___ **Sterilization of instruments** (e.g., autoclave initially, and secondary use of hot bead units)
- ___ Sterilization of **equipment** (e.g., microscopes, drills, stereotactic), draping and or cold sterilization
- ___ Appropriate cold sterilization solutions (e.g., chlorhexidine) for devices, catheters
- ___ Appropriate pre-procedural physical examination of patient, **body weight** taken within 24-48 hours of procedure
- ___ Resetting of the field between animals (if applicable, see “Batch Asepsis Check List”)

Demonstrate:

- ___ Hand scrub for the surgeon, donning gown and gloves (both **open and closed techniques**)
- ___ Opening of pack and laying out of instruments and supplies within the surgical work area (while sterilely gloved)
- ___ Demonstrate the **“box”** for hand/arm movement, **“praying stance”** for a gowned/gloved surgeon
- ___ Proper **draping of equipment** as needed (e.g., use of roll stockinet, gauze)
- ___ Preparation of the sterile field at the surgical incision site, **“the scrub”**, while not sterile, and final paint & placement of drapes while gloved in
- ___ Preparation of patient **monitoring** equipment prior to draping of animal, also discuss tissue color & respiratory movement, interdigital pinch as monitoring parameters
- ___ Positioning of the patient within the surgical field, **supplemental heat and hydration**
- ___ Sterile **draping of the patient** (types: “sticky” bio-occlusive, paper, stockinet, gauze, cloth)
- ___ Actual surgical manipulations and techniques, including those related to maintaining asepsis
- ___ Actual closure, stress importance of **proper tissue alignment**, number of sutures/clips, and proper pressure applied by tying/clamping to avoid dehiscence of tissues
- ___ Removal of drapes post-operatively and relocation of patient to recovery provided with **supplemental heat, fluid and oxygen therapy** as needed
- ___ Surgeon is non-sterile as soon as drape is removed

Other Considerations:

- ___ Prolonged surgical times may expose tissues to contaminants, cause them to dry, or compromise blood flow. Tissues damaged by crushing/drying, suture/clips, or other surgical implants serve as a nidus for infection.
- ___ **Pre-emptive analgesic administration** (e.g., q12hrs for first 24hrs post operatively, or PRN until 48hrs post op)
- ___ CMDC **recordkeeping** of analgesic administration (i.e., surgical record & progress notes)
- ___ Suture/wound clip removal in 7-10 days

___ Non-rodent USDA specific techniques and regulations for users of these species (ie rabbits, ferrets, swine)

One Person Batch Technique:

___ **Resetting** of the sterile surgical work area between animals and establishing a new sterile field for the next patient: removal of completed animal from station, cleaning of all instruments, then "return to the initial set up

___ Following surgical wound closure, **anesthesia** turned off, **vaporizer setting "0"** only oxygen delivered, and patient **monitored** by the surgeon

___ **Instruments cleaned grossly** (e.g., blood removed) and placed in "dirty" saline or water bowl

___ Place groups of **4-6 instruments** of similar sized in **hot bead sterilizer** for **15 seconds/group**

___ Instruments are placed approximately half of their entire length **tips-first** into the beads

___ Instruments are then gently placed in the "**clean**" saline bowl to **cool** – should hear a "**hiss**"

___ Instruments can be "stored" in the saline between animals or moved to a designated area, covered & allowed to drain prior to use

___ Animal showing signs of **recovery from anesthesia** and ready to move to recovery

___ Move animal to recovery cage using the drape and or under pad "**placemat**"

___ Remove drape and provide **supplemental heat, fluids and oxygen therapy** as needed

___ The surgeon is non-sterile as soon as the animal is removed from surgical station

___ **Next animal is prepped** by surgeon, and **positioned for moving** to surgical work area/station

___ Surgeon dons **new sterile gloves** and using sterile drape material to **move the prepped animal** to the surgical work area/station

___ **Sterile draping** is completed and surgery begins

Other Considerations:

___ Handling dropped/dirty instruments by "double dipping" in bead unit (use sterile instrument to place first the handles into the beads, then remove and place tips down in beads, then in saline)

___ Insert instrument tips gently to avoid damage to delicate instruments. Place "like instruments" together.

___ **Trocars** need to be "drug in and seated" vs. pushed straight down (beads can lodge inside and overheat causing damage/clogging of the trocar, caught beads can accidentally be transferred inside the animal, and in extreme cases 'mini-explosions'/flying glass beads)

___ Remove all **positioning tape** (i.e., animal must not return to cage with tape)

___ **Do not leave instruments in the hot bead sterilizer.** Over-heating can cause warping/damage to instruments and can burn users' fingers; heat travels up the handle.

Training provided by: _____

Print

Sign

Date

Save this document in PDF format and upload to your ARC profile Animal Researcher Training & Experience under "Other Documents."*