



STANDARD OPERATING PROCEDURE #207 RODENT CASTRATION

1. PURPOSE

The intent of this Standard Operating Procedure (SOP) is to describe procedures for castration surgery in rodents.

2. RESPONSIBILITY

Principal investigators (PI) and their staff, veterinary care staff or any individual performing surgery on rodents, or assisting in those procedures.

3. MATERIALS

- 3.1. Analgesics
- 3.2. Anesthetic: isoflurane
- 3.3. Sterile ophthalmic ointment
- 3.4. Electric clipper or depilatory cream
- 3.5. Gauze (sterile and non-sterile)
- 3.6. Antiseptic solution for skin (e.g., chlorhexidine 2% solution or povidone-iodine solution used alternatively with 70% alcohol, or 2% chlorhexidine in 70% alcohol solution)
- 3.7. Heating disc, warming pad or warm-water circulating pad. Do not use electric heating pads unless specifically designed for use with laboratory rodents.
- 3.8. Sterile surgical drapes or Glad® Press'n Seal® wrap
- 3.9. Sterile isotonic saline solution^{3.101}
- 3.10. Sterile cotton-tipped sw

- 4.8.6. The fat surrounding the vas deferens and spermatic blood vessels may be gently removed using dry sterile gauze to facilitate cauterization.
- 4.8.7. Cauterize the vas deferens and spermatic blood vessels. Place removed testes aside. Check for bleeding.
- 4.8.8. Use sterile cotton-tipped swabs to gently return any remaining tissues into the scrotum.
- 4.8.9. Repeat with the other testes.
- 4.8.10. Apply topical local analgesic to the incision.
- 4.8.11. Hold the edges of the incision together with forceps and use one drop of tissue glue to close the skin. Alternatively, suture the incision.
- 4.9. Disinfect the instruments between each animal by dipping them in a hot glass bead sterilizer for approximately 30 seconds after removing any blood and debris (let cool completely).
- 4.10. Allow animals to recover in a clean cage. Provide supplemental heat (use a heating disc or pad, heating lamp or incubator) for approximately 30 minutes and monitor the animals until they have fully recovered prior to returning them to their housing room.
- 4.11. Administer analgesics post-operatively as per Rodent Analgesia SOP.

SOP REVISION HISTORY

DATE	NEW VERSION
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Investigator:	Protocol:
Procedure: Castration	Performed by:

Instructions: complete this log for rodent procedures requiring anesthesia, analgesia or post-procedure care (ex. surgeries, experimental infection). Keep the log in the housing room while active and in your files for 3 years for future review by the Quality Assistant and/or the FACC.

ANALGESIA

- carprofen: mouse: 20mg/kg, rat: 5-10 mg/kg, SC, every 24 hrs
- buprenorphine: mouse: 0.1mg/kg SC or IP every 4-8 hrs;
rat: 0.05mg/kg, SC or IP, every 8-12 hrs

ANESTHESIA

- isoflurane 2-2.5%
- ketamine/xylazine/acepromazine*:
mouse: 100 mg/kg (K)- 10 mg/kg (X)- 3 mg/kg (A) IP
rat: 50 mg/kg (K)- 5 mg/kg (X)- 1 mg/kg (A); IP or IM

OTHER AGENTS ADMINISTERED

- _____
- _____

ANALGESIA

- carprofen: mouse: 20mg/kg, rat: 5-10 mg/kg, SC, every 24 hrs
- buprenorphine: mouse: 0.1mg/kg SC or IP every 4-8 hrs; rat: 0.05mg/kg, SC or IP, every 8-12 hrs
- OTHER _____

Initial the appropriate boxes when completed

Animal ID	Date	Analgesia			SC fluids			Wet food			Time			Remove Sutures (Day 7-10)
		Day 1	Day 2	Day 3	Day 1	Day 2	Day 3	Day 1	Day 2	Day 3	Day 1	Day 2	Day 3	
1														
2														
3														
4														
5														
6														
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