



Cornell University
Cornell Center for Animal Resources and Education

CARE613.01 Preventive Health Program for Swine

The intent of this standard operating procedure (SOP) is to describe preventative veterinary care of swine. This SOP is intended for use by CARE and facility managers and staff. This SOP is approved by the Cornell Institutional Animal Care and Use Committee (IACUC) and the Cornell Center for Animal Resources and Education (CARE). Individual facilities may have supplemental SOPs that further describe procedures specific to their location. Any exemption must be approved by the IACUC prior to its application.

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1. Introduction

This SOP details the preventative veterinary health care program utilized to reduce the risk of communicable and zoonotic disease in swine at Cornell University's teaching and research facilities.

2. Materials

- FDA approved vaccines and medications
- Physical exam materials
- Hoof trimming supplies
- Ear notch tool
- Emasculator tool
- Side-cutting pliers
- Disinfecting solution

3. Procedures

a.. Acclimation and quarantine

- i. Acclimate animals transferred from another Cornell facility for at least 72 hours prior to beginning experimental procedures.

- ii.. All new incoming swine (*i.e.*, non-Cornell origin) shall be SPF.
 - Perform a physical exam and Brucellosis test on all new incoming swine.
 - Isolate new incoming swine for a period of at least two weeks via segregated housing in a pen adjacent to resident swine.
- b. Baby pig management
 - i. 2–12 hours postpartum:
 - Navel dipping — Dip navels of neonates in Triodine between 2 and 12 hours of birth.
 - ii. 12–24 hours postpartum:
 - Tooth clipping — Clip the 8 needle teeth of neonates with a clean, stainless steel, side-cutting pliers. Each tooth shall be clipped about 1 mm above the gum line. Sanitize the pliers between piglets by dipping in fresh disinfecting solution (e.g., iodine, triodine, betadine, or chlorhexidine).
 - Ear notching — A stainless-steel, ear notching tool is used to apply a unique notch pattern via the universal swine identification numbering system. Sanitize the ear notching tool between uses by dipping in fresh disinfecting solution (e.g. iodine, triodine, betadine, or chlorhexidine).
 - Tail docking — Dock neonates' tails with a stainless-steel emasculator tool, leaving approximately 1 inch of tail remaining. Apply undiluted iodine on the tail stump wound. Sanitize the emasculator between each use by dipping in fresh disinfecting solution (e.g. iodine, triodine, betadine, or chlorhexidine).
 - iii. 7–10 days postpartum:
 - Castrations — Wash the scrotal area with a betadine scrub. The scrotum is incised, and the testes are pulled and cut. Leave the incision open (*i.e.* not sutured) and spray the area with betadine solution.
- c. Preventive medicine
 - i. Piglets:
 - 12-24 hours postpartum:
 - 1 injection of iron-dextran solution, 100 mg, intramuscular (IM).
 - 1 injection of procaine Penicillin G, 150,000 units, IM.
 - 7–10 days old:
 - Vaccine injection; Atrophic Rhinitis, Pasteurellosis, Pneumonia, and Erysipelas, administered IM.
 - Weaning (3–4 week old):
 - Vaccine booster injection: Pasturella/Bordatella, Pasteurellosis, and Erysipela administered IM.
 - 1 injection of Ivermectin, 5 mg (0.5 mL of 1% Ivomec solution), SQ.
 - ii. All adults (gilts, sows and boars):
 - Every 6 months:

Deworm (Ivomec® in feed per label instructions).

Semiannual:

Vaccinate for erysipelas, parvovirus and 5-way leptospira.

iii. Pregnant sows:

4 weeks prior to farrowing:

Vaccinate for *Streptococci suis*, *E. coli* and *Clostridia sp*; IM.

2 weeks prior to farrowing:

Vaccinate for *Streptococci suis*, *E. coli* and *Clostridia sp*; IM.

Note: Routine treatments are administered by professional caretakers in consultation with veterinary staff.

d. Hoof care

i. Hoof health is assessed by trained professional staff.

ii. When necessary, veterinary staff is notified and hooves are trimmed or treated as required.

e. Disposal of animals

i. Animals are humanely euthanized following guidelines set in CARE SOP 307 Euthanasia of Non-Rodent Mammals...

ii. Production animals may be sold.

f. Record Keeping

i. Maintain records on all animals in the facility.

ii. Refer to CARE SOP 542 Maintaining Clinical Records for Animal Research Models

4. Safety

a. When working with animals wear appropriate PPE, observe proper hygiene, and be aware of allergy, zoonosis and injury risks. Refer to appropriate references below.

b. Working with swine in a farm setting can be very loud. Check with facility manager regarding requirement for hearing protection.

5. Contingencies

a. Emergency veterinary care is available at all times, including after working hours, weekends and holidays, through Ambulatory & Production Medicine Clinic (607-253-3140) or CARE (1-800-349-2456).

b. Post emergency contacts in a conspicuous location.

6. References

- *Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching*. Federation of Animal Science Societies, Savoy, IL. 1999.
- University of Medicine and Dentistry of New Jersey. Swine Husbandry SOP 1-4-98. <http://www3.umdnj.edu/oraweb/pighusb.htm> (accessed Dec. 2005).

- Grandin, Temple. Recommendations for Investigators Using Pigs for Research. In *Comfortable Quarters for Laboratory Animals*, 9th ed.; Viktor Reinhardt, Ed. Animal Welfare Institute, Washington, DC, 2002.
- Zoonosis : <http://www.research.cornell.edu/care/zoonoses.html>
- Allergens Prevention:
[http://www.research.cornell.edu//CARE/documents/OHS/AllergyPreventionFact Sheet.pdf](http://www.research.cornell.edu//CARE/documents/OHS/AllergyPreventionFactSheet.pdf)
- CARE 307 Euthanasia of Non-Rodent Mammals:
<http://www.research.cornell.edu/care/documents/SOPs/CARE307.pdf>
- CARE 538 Vermin Control:
http://www.research.cornell.edu.care/documents/SOPs/CARE_538.pdf
- CARE SOP 542 Maintaining Clinical Records for Animal Research Models
<http://www.research.cornell.edu/CARE/documents/SOPs/CARE542.pdf>
- CARE 707 Animal Related Injury:
<http://www.research.cornell.edu/care/documents/SOPs/CARE707.pdf>
- CARE 713 Hygiene-Hand Washing:
<http://www.research.cornell.edu/care/documents/SOPs/CARE713.pdf>
- CARE 715 Personal Protective Equipment:
<http://www.research.cornell.edu/care/documents/SOPs/CARE715.pdf>

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