



*University of Illinois College of Veterinary Medicine  
Veterinary Teaching Hospital*

## **Exposure/Infection Control Plan**

Date of Plan Adoption: 11-16-2017

Date of Next Review: 11-16-2019

This plan will be followed as part of our routine procedures. The plan will be reviewed at least annually and as part of new employee training.

### **PERSONAL PROTECTIVE ACTIONS AND EQUIPMENT**

#### **VTH Policy: Bio406**

**Hand hygiene:** Perform hand hygiene between examinations of individual animals or animal groups (e.g. litters of puppies or kittens, groups of cattle) and after contact with feces, body fluids, vomitus, exudates, and articles contaminated by these substances. Perform hand hygiene before eating or drinking; after using the toilet; after cleaning animal cages; after contact with environmental surfaces in animal areas; after handling laboratory specimens; after removing gloves; and whenever hands are visibly soiled. Keep fingernails short. Keep hand-hygiene supplies stocked at all times.

Each department within the hospital is responsible for maintaining their own supply of hand-hygiene items.

#### **Correct handwashing procedure:**

Wet hands with running water

Place soap in palms

Rub hands together to make a lather

Scrub hands thoroughly for 20 seconds

Rinse soap off hands

Dry hands with disposable towel

Turn off faucet using the disposable towel to avoid hand contact

#### **Correct use of hand rubs:**

Place alcohol-based hand rub in palms

Apply to all surfaces of hands

Rub hands together until dry

**Gloves:** Gloves are not necessary when examining or handling healthy animals. Wear gloves when touching feces, body fluids, vomitus, exudates, and non-intact skin. Wear gloves for dentistry, resuscitations, and obstetrical procedures; when cleaning cages, litter boxes, and environmental surfaces and equipment in animal areas; when handling dirty laundry; when handling diagnostic specimens (e.g.,

urine, feces, aspirates, or swabs); and when handling an animal with a suspected infectious disease. Wear gloves if you have wounds or compromised skin integrity of the hands. Change gloves between examination of individual animals or animal groups (e.g., a litter of puppies), between dirty and clean procedures performed on the same patient, and when torn. Gloves should be removed promptly and disposed of after use. Disposable gloves should not be washed and reused. Hands should be washed immediately after glove removal.

**Facial protection:** Use a face shield, or goggles worn with a surgical mask whenever splashes or sprays are likely to occur. Wear facial protection for the following procedures: lancing abscesses, flushing wounds, dentistry, nebulization, suctioning, lavage, cattle foot trimming using power tools and obstetrical procedures.

**Respiratory tract protection:** Use a molded particulate respirator (N95, N99) when exposure to airborne pathogens is likely. Additional respirator types are available for protection from vapors such as anesthetic waste gases. Use respiratory protection under the supervision of a medical doctor and follow OSHA regulations. Training and fit testing are required annually for their use.

#### VTH Policy: Bio405

**Protective outerwear:** Wear a protective outer garment such as a laboratory coat, smock, non-sterile gown, or coveralls when attending animals and when conducting cleaning chores in animal areas. Protective outerwear should be changed after handling an animal with a known or suspected infectious disease, after working in an isolation room, after a high-risk procedure, and whenever soiled. Impermeable outerwear should be worn during obstetric procedures and whenever substantial splashes or large quantities of body fluids may be encountered. Shoes or boots should have thick soles and closed toes and be impermeable to water and easily cleaned. Disposable shoe covers or washable boots should be worn when heavy quantities of infectious materials are expected. Garments should be changed and laundered regularly, and whenever they become visibly soiled or contaminated. Coveralls should be changed and boots cleaned between farm premises/facilities/locations/herds. Protective outerwear should not be worn outside of the work environment. Keep clean outer garments available at all times.

## PROTECTIVE ACTIONS DURING VETERINARY PROCEDURES

#### VTH Policy: Bio402a and Bio402b

**Patient Intake:** Place animals that have a suspected or known infectious agent directly into a designated exam or isolation room. Bring them in on a gurney or in a side entrance if possible. Foot coverings may be used in place of a gurney if necessary.

#### VTH Policy: PtHand 908 and PtHand 909

**Animal handling and injury prevention:** Take precautions to prevent bites and other animal-related injuries. Identify aggressive animals and alert clinic staff. Use physical restraints, muzzles, bite-resistant gloves, and sedation or anesthesia as necessary in accordance with hospital policies. Plan an escape route when handling large animals. Do not rely on owners or untrained staff for animal restraint.

If there is concern for personal safety, notify any faculty member or supervisor.

When injuries occur, wash wounds with soap and water, then immediately report incident to: faculty member or supervisor, then fill out associated injury form within 24 hours. If medical attention is needed contact: your local health care provider or students may also seek help at McKinley Health Center. Bite

incidents will be reported to: Champaign County Animal Control as required by law. The form can be found on the CVM intranet.

**VTH Policies: Bio405, Bio406**

**Examination of animals:** Wear protective outerwear and perform hand hygiene before and after examination of individual animals or animal groups (e.g., a litter of puppies). Use gloves and other protective equipment as appropriate to examine potentially infectious animals. Keep potentially infectious animals in a designated examination room until diagnostic procedures and treatments have been performed.

**Injections, venipuncture, and aspiration procedures:** Wear gloves when performing soft tissue or body fluid aspirations and while performing venipuncture on animals suspected of having an infectious disease. Trained personnel should restrain animals to minimize needle stick injuries due to animal movement. Do not bend needles, pass an uncapped needle to another person, or walk around with uncapped needles. Do not remove an uncapped needle from the syringe by hand or place a needle cap in the mouth. Do not recap needles unless the one-handed scoop method is used.

**One-handed scoop method for recapping needles:**

Place the cap on a horizontal surface

Hold the syringe with attached needle in 1 hand

Use the needle to scoop up the cap without use of the other hand

Secure the cap by pushing it against a hard surface

Dispose of all sharps in designated containers. After injection of live vaccines, or performing soft tissue or body fluid aspirations, dispose of the used syringe with needle attached in a sharps container. Do not transfer sharps from one container to another. Replace sharps containers before they are completely full.

**Dental procedures:** Wear protective outerwear, gloves, and facial protection when performing dental procedures or when in range of splashes or sprays (such as when monitoring anesthesia).

**Cattle foot trims:** Wear gloves, and if using power tools, wear facial and ear protection.

**Resuscitation:** Wear gloves and facial protection. Use a manual resuscitator, anesthesia machine, or ventilator to resuscitate animals. Do not blow directly into the mouth, nose, or endotracheal tube of the animal.

**Obstetrics:** Wear gloves or shoulder-length sleeves, facial protection, and impermeable outerwear. Do not blow directly into the nose or mouth of a non-respiring neonate.

**Diagnostic specimen handling:** Wear protective outerwear and gloves. Handle feces, urine, vomitus, aspirates, and swabs as if they were infectious. Discard gloves and perform hand hygiene before touching clean items (e.g., medical records, keyboard, telephone).

**Wound care and abscesses:** Wear protective outerwear and gloves for debridement, treatment, and bandaging of wounds. Facial protection should also be used when lancing abscesses or lavaging wounds. Discard used bandages. Handle used scissors, clipper blades and other equipment as if contaminated. Autoclave or gas sterilize left-over bandaging material before putting it away. Perform hand hygiene after removing gloves.

## ENVIRONMENTAL INFECTION CONTROL

### VTH Policy: Bio408

**Cleaning and disinfection of equipment and environmental surfaces:** Wear gloves when cleaning and disinfecting cages and other surfaces in animal areas. Perform hand hygiene afterwards. Clean surfaces and equipment to remove organic matter, and then disinfectant according to manufacturer's instructions. Clean and disinfect animal cages, toys, and food and water bowls between uses and whenever visibly soiled. Keep clean items separate from dirty items.

### VTH Policy: Bio 402b, 402c and Bio407

**Isolation of infectious animals:** Put animals with an infectious disease in isolation as soon as possible. Clearly mark the room or cage to indicate the patient's status and describe additional precautions. Limit access to the isolation room. Keep only the equipment needed for the care and treatment of the patient in the isolation room, including dedicated cleaning supplies. PPE should be donned immediately prior to care of the animal in isolation and removed just prior to leaving isolation. Discard gloves after use. Leave reusable personal protective equipment (e.g., gown, mask) in the isolation room. Clean and disinfect or discard protective equipment between patients and whenever contaminated by body fluids. Disassemble and thoroughly clean and disinfect any equipment that has been used in the isolation room. Place potentially contaminated materials in a bag before removal from the isolation room. While the patient is housed in isolation the clinician(s) and students overseeing the cases are responsible for cleaning the cage and treatment rooms.

### VTH Policy: Bio411

**Handling laundry:** Wear gloves and protective outerwear when handling contaminated laundry. Check for sharps before items are laundered. Wash animal bedding and other laundry in the facility with standard laundry detergent, and completely machine dry at the highest temperature suitable for the material. Use separate storage and transport bins for clean and dirty laundry. Outerwear to be laundered at home should be transported in a plastic bag, kept separate from household items, washed separately and then thoroughly machine dried.

**Spill response and decontamination:** Immediately contain spills and splashes of potentially infective substances with absorbent material (e.g., paper towels, sawdust, or cat litter). Use PPE to protect against the potentially infective agent and the cleaning/disinfectant to be used. Consult and follow the label recommendations. Pick up the material, seal it in a leak-proof plastic bag, and clean and disinfect the area. Keep clients, patients, and employees away from the spill area until disinfection is completed.

University of Illinois Division of Research Safety ([drs.illinois.edu](https://drs.illinois.edu)) Accident Response → Biological Material Spill Response, Chemical Spill, Mercury Spill or Radiological Material Spill

**Veterinary medical waste:** Biohazardous or "red bag" waste should be collected in an autoclavable bag that is stored in a leak-proof container with a lid and displays the international biohazard symbol. The container must have the biohazard symbol on the lid and sides of the container. The biohazard waste is then picked up by a commercial company for disinfection and disposal.

Sharps shall be disposed of in approved Sharps Disposal Containers (SDCs). They are provided free of charge to University personnel through the Division of Research Safety (DRS). Contact DRS for delivery and pick-up of SDCs.

United States Environmental Protection Agency ([epa.gov/rcra/medical-waste](http://epa.gov/rcra/medical-waste))  
University of Illinois Division of Research Safety ([drs.illinois.edu](http://drs.illinois.edu); see waste management)

**Rodent and vector control:** Seal entry portals, eliminate clutter and sources of standing water, keep animal food in closed metal or thick plastic covered containers, and dispose of food waste properly to keep the facility free of rodents, mosquitoes, and other arthropods. Check and treat animals entering the veterinary facility for vector parasites.

**Other environmental controls:** Use the employee break room or designated area for eating, drinking, application of make-up, and similar activities. These activities should not occur in animal-care areas or in the laboratory. Do not keep food or drink for human consumption in the same refrigerator as food for animals, biologics, or laboratory specimens. Dishes for human use should be washed and stored away from animal-care and animal food preparation areas.

## OCCUPATIONAL HEALTH

**Record keeping:** Records will be maintained on vaccinations, rabies virus antibody titers, and exposure and injury incidents. Changes in health status (e.g., pregnancy) that may affect work duties should be reported to and recorded by the supervisor so that accommodations may be made.

### VTH Policy: Rabies 10101c

**Pre-exposure rabies vaccination:** All staff with animal contact must be vaccinated against rabies, followed by periodic titer checks and rabies vaccine boosters, in accordance with the recommendations of the Advisory Committee on Immunization Practices (CDC, 2008).

**Tetanus vaccination:** Tetanus immunizations must be up-to-date. Report and record puncture wounds, animal bites, and other animal-related trauma. Consult a health-care provider regarding the need for a tetanus booster.

**Influenza vaccination:** Veterinary personnel are encouraged to receive the current seasonal influenza vaccine. The CDC website and healthcare consultation will be used for guidance ([cdc.gov](http://cdc.gov)).

### VTH Policy: Rabies 10101b

**Documenting and reporting exposure incidents:** Report incidents that result in injury or potential exposure to an infectious agent to the VTH office.

Information will be collected for each exposure incident using University forms. Incident reporting includes documenting date, time, location, person(s) injured or exposed, vaccination status of injured person(s), other persons present, description of the incident, whether health-care providers and public health authorities were consulted, the status of any animals involved (e.g., vaccination history, clinical condition, and diagnostic information), first aid provided, and plans for follow-up.

**Staff training and education:** Infection control and hazard awareness training and education, where applicable to the job, will be documented in the employee health record.

**Pregnant and immunocompromised personnel:** Pregnant and immunocompromised employees are at increased risk from zoonotic diseases. If you are concerned that your work responsibilities may put you at increased risk, inform your supervisor so that preventive measures may be taken (such as increased use of PPE) and other accommodations may be made. Consultation between the employee and a health-care provider may be needed.

## **Definitions**

**OSHA** – Occupational Safety and Health Administration; a federal agency of the United States Department of Labor. OSHA’s mission is to “assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance”.

## **Appendix A**

Emergency services

- Call 911 for Police, Fire or Medical emergencies

More information is available at [vetmed.illinois.edu/intranet-safety/](http://vetmed.illinois.edu/intranet-safety/)

## **Appendix B**

Reportable or notifiable veterinary diseases to be reported to the Illinois Department of Agriculture

- Anthrax
- Avian Influenza
- Bluetongue
- Brucellosis – bovine, canine, swine, equine and caprine
- Chronic Wasting Disease (CWD) – cervids
- Contagious Equine Metritis (CEM)
- Equine Infectious Anemia (EIA)
- Equine viral Encephalitides
- Fowl Typhoid
- Hog Cholera
- Infectious Encephalomyelitis - avian
- Infectious Laryngotracheitis
- Monkeypox
- Mycoplasma gallisepticum – turkeys
- Mycoplasma synoviae - turkeys
- Newcastle disease
- Paramyxovirus Infection
- Paratuberculosis – (Johne’s Disease)
- Piroplasmosis
- Plague
- Pseudorabies – (Aujeszky’s disease)
- Psittacosis – (ornithosis)
- Pullorum Disease

- Q Fever
- Rabies
- Salmonella enteritidis – poultry
- Salmonella typhimurium – poultry
- Scabies – cattle and sheep
- Scrapie
- Transmissible Spongiform Encephalopathy (TSE)
- Trichinellosis
- Tuberculosis – bovine
- Tularemia
- Vesicular conditions of any type
- West Nile Virus
- Any contagious or infectious disease presently considered as “exotic”, i.e., not known to exist in the United States

### **Appendix C**

Illinois State Department of Agriculture or Board of Animal Health contact information and regulations.

- State Veterinarian: Dr. Mark Ernst
- Mailing Address: P.O. Box 19281 Springfield, IL 62794-9281
- Office Address: 801 E. Sangamon Ave., State Fairgrounds Springfield, IL 62794-9281
- Telephone: (217) 782-4944
- Fax: (217) 558-6033
- Email: [mark.ernst@illinois.gov](mailto:mark.ernst@illinois.gov)

### **Appendix D**

State and Local public health contracts for consultation on zoonotic diseases.

- **IDPH – Springfield Headquarters**
- 525-5835 West Jefferson Street
- Springfield, IL 62761
- (217)782-4977
- **Champaign County Public Health**
- 201 W. Kenyon Road
- Champaign, IL 61820
- (217) 352-7961

### **Appendix E**

Standard of Cleaning Protocol Template

(<http://vetmed.illinois.edu/intranet-safety/tools/>)

## Appendix F

### Zoonotic Diseases of Importance in Illinois

Disease	Agent	Means of transmission	Most common species associated	Common symptoms in humans	Disinfectant suggestions
<b>Avian Influenza</b>	Highly pathogenic avian influenza virus	Contact, aerosol	Poultry, pet birds	High fever, headache, chills, muscle aches, vomiting, jaundice, red eyes, abdominal pain	Lysol Brand Disinfectant, bleach, Virkon
<b>Brucellosis</b>	<i>Brucella melitensis</i> , <i>B. abortus</i> , <i>B. suis</i> , <i>B. canis</i>	Contact, aerosol	Goats, cattle, swine, feral pigs, dogs, horses	Fever, back pain, poor appetite, headache, night sweats, weakness, abdominal pain, cough	Bleach solution, 70% ethanol, glutaraldehyde
<b>Cryptosporidiosis</b>	<i>Cryptosporidium parvum</i>	Contact	Cattle (typically calves)	Watery diarrhea, dehydration, poor appetite, stomach cramps, fever, nausea, vomiting	Hydrogen peroxide, ammonium hydroxide
<b>Dermatophytosis (ringworm)</b>	<i>Microsporum</i> spp, <i>Trichophyton</i> spp, <i>Epidermophyton</i> spp	Contact	Cats, dogs, cattle, goats, sheep, horses, rabbits, rodents	Red, itchy, scaly, or raised patches, patches that develop blisters or begin to ooze, patches that may be redder on the outside edges	Bleach solution, benzalkonium chloride, strong detergents
<b>Ehrlichiosis or anaplasmosis</b>	<i>Ehrlichia</i> and <i>Anaplasma</i> spp	Vector	Deer, rodents, horses, dogs	Mild fever, headache, chills, muscle aches, nausea, vomiting, diarrhea, fatigue	Removal of tick, wash bite area with soap and water
<b>Influenza</b>	Influenza A virus	Contact, aerosol	Poultry, swine, ferrets	Fever, cough, sore throat, muscle aches, runny nose	Bleach solution, household disinfectants
<b>Leptospirosis</b>	<i>Leptospira</i> spp	Contact, aerosol	Rodents, swine, cattle, sheep, goats, horses, dogs	High fever, headache, chills, muscle aches, vomiting, jaundice, red eyes, abdominal pain	Any product with antibacterial action. Soap, bleach, household chemicals.
<b>Lyme disease</b>	<i>Borrelia burgdorferi</i>	Vector	Small rodents, wild large mammals	Severe headaches and neck stiffness, joint pain, facial palsy	Remove tick within 24 hrs to reduce chances of disease transmission.
<b>Q Fever</b>	<i>Coxiella burnetii</i>	Contact, aerosol, vector	Cattle, sheep, goats, dogs, cats and other domestic mammals, ticks	Fever, chills, fatigue, headache, muscle aches, nausea, vomiting, chest pain, stomach pain, weight loss, non-productive cough	Quaternary ammonium products
<b>Rabies</b>	Lyssavirus	Contact	Cats, dogs, cattle and other domestic animals, wild carnivores, raccoons, bats, skunks, foxes	weakness, fever, headache, itching at site of bite then progressing to cerebral dysfunction, anxiety, confusion, agitation	Bleach solution, 45-75% ethanol, quaternary ammonium compounds
<b>Salmonellosis</b>	<i>Salmonella</i> spp	Contact	Reptiles, amphibians, poultry, horses, swine, cattle, pocket pets, many species of mammals and birds	Nausea, vomiting, abdominal cramps, diarrhea, fever, chills, headache, blood in the stool.	Bleach solution, household disinfectants
<b>Tularemia</b>	<i>Francisella tularensis</i>	Vector, contact, aerosol	Rabbits, pocket pets, wild aquatic rodents, sheep, cats, horses, dogs	Skin ulcer forms at site of infection, swollen and painful lymph glands, fever, chills, headache, exhaustion	1% bleach, 70% ethanol, glutaraldehyde