

# Zoonotic Disease Infection Control Plan

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

## Annual/Periodic Review Dates

Date	Reviewer	Date	Reviewer	Date	Reviewer

# Policy

Clinic Name: \_\_\_\_\_

This clinic is committed to provide a safe and healthful work environment our entire staff. The exposure control plan is a document to assist our clinic implementing procedures to lessen the likelihood of exposure to zoonotic disease. Every employer with work operations involving handling, culling, transporting, killing, eradicating, or disposing of animals infected with zoonotic pathogens, or the cleaning and disinfection of areas used, or previously used, to contain such animals or their wastes, shall establish, implement, and maintain written zoonotic disease control procedures to mitigate the risk of transmission of disease from the animals to employees.

Employees may have occupational exposure to zoonotic disease agents while performing the following tasks and procedures:

*[List task and procedures which may present zoonotic disease exposure hazards. Some examples are provided below]*

- Directly assisting in birthing or clean-up of wastes following birthing.
- Collecting and disposing of carcasses of animals which have died from contagious disease or unknown causes.
- Handling live animals, or untreated wastes and carcasses.
- Cleaning of enclosed work areas which may contain untreated animal waste.
- Performing dental procedures.
- Performing surgical procedures.

## Tasks and Procedures

The tasks and procedures for this clinic are:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

# Program Administration

The Safety Compliance Coordinator for this clinic is responsible for the implementation of the Exposure Control Plan and will review and update the exposure control plan at least annually and whenever necessary to include new or modified tasks and procedures.

Safety Compliance Coordinator: \_\_\_\_\_

# Personal Protective Actions and Equipment

The Exposure Control Plan for this clinic includes personal protective actions and equipment.

## Hand Hygiene

Proper hand hygiene will be performed between examinations of individual animals or animal groups (e.g. litters of puppies or kittens, or groups of cattle) and after contact with feces, body fluids, vomitus, exudates, and articles contaminated by these substances. Additionally, hand hygiene will be performed 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.

All, workforce members will perform hand hygiene before eating, drinking, smoking, and after using the toilet.

Fingernails shall be kept short with smooth edges. Artificial nails are not recommended and hand jewelry should not be worn when handling animals.

## Handwashing Procedure

Staff members should use the following handwashing procedure:

1. Wet hands with running water.
2. Place soap in palms.
3. Rub hands together to make a lather.
4. Scrub hands thoroughly for 20 seconds.
5. Rinse soap off hands.
6. Dry hands with disposable towel.
7. Turn off faucet using the disposable towel to avoid hand contact.

## Hand Rubs

Staff members should use the following procedure when using hand rubs:

1. Place alcohol-based hand rub in palms.
2. Apply to all surfaces of hands.
3. Rub hands together until dry.

## Glove Use

Gloves are used to provide protection from direct skin exposure to pathogens and chemicals. Gloves shall be worn when:

- Touching feces, body fluids, vomitus, exudates, and non-intact skin.
- Cleaning cages, litter boxes, and environmental surfaces and equipment in animal areas.
- Handling dirty laundry.
- Handling diagnostic specimens (e.g., urine, feces, aspirates, or swabs).
- Handling an animal with a suspected infectious disease.
- Performing the following procedures:
  - Dentistry.
  - Resuscitations.
  - Necropsies.
  - Obstetrical.
  - All surgical procedures.

In addition, all staff members should:

- Change gloves between examination of individual animals or animals.
- Change between dirty and clean procedures performed on the same patient.
- Replace torn gloves immediately.
- Promptly remove and dispose of gloves after use.
- Never wash or reuse disposable gloves.
- Wash hands immediately after glove removal.

## Facial protection

Use a face shield, or goggles worn with a surgical mask whenever splashes, sprays or aerosols are likely to occur.

Wear facial protection for the following procedures:

- Lancing abscesses.
- Flushing wounds.
- Dental procedures.
- Nebulization.
- Suctioning, lavage.
- Obstetrical procedures.
- Necropsies.
- All surgical procedures.

## Protective Outerwear

Protective apparel is designed to protect street clothes or scrubs from contamination.

### Lab Coats, Smocks, and Coveralls

Lab coats, smocks, and coveralls should be changed daily.

Protective outerwear should also be changed:

- After handling an animal with a known or suspected infectious disease.
- After working in an isolation room.
- After performing a necropsy or other high-risk procedure.
- When visibly contaminated.

## **Non-Sterile Gowns**

Gowns provide more coverage and protection than lab coats. Permeable gowns can be used for general care of patients in isolation. Impermeable gowns should be used to provide greater protection when splashes or large quantities of body fluids are present or anticipated. Disposable gowns should not be reused. Reusable fabric gowns should be laundered between each use.

Gloves are indicated whenever gowns are worn. Gowns and gloves should be removed and placed in the trash or laundry bin before leaving the animal's environment. Hands should be washed immediately afterwards

Impermeable outerwear (e.g. gowns) should be worn:

- During obstetric procedures.
- During necropsies.
- When substantial splashes or large quantities of body fluids may be encountered.

## **Footwear**

Footwear should be suitable for the specific working conditions (e.g., rubber boots for farm work) and should protect veterinary personnel from exposure to infectious material as well as trauma. Recommendations include:

- Thick soles.
- Closed toes.
- Impermeable to water.
- Easily cleaned.
- Disposable shoe covers or washable boots should be worn when heavy quantities of infectious materials are expected.

# Procedures

Staff members will follow the procedures below when applicable.

## Patient Intake

Waiting rooms should be a safe environment for clients, animals, and employees.

- Place animals that have neurologic signs, diarrhea, respiratory signs, fever, infected wounds, chronic infections, or a known exposure to an infectious agent directly into a designated exam or isolation room.
- Use a secondary entrance if possible.

## Animal Handling and Injury Prevention

Use precautions to prevent bites and other animal related injuries. All staff should identify aggressive animals and, when necessary, use physical restraints, muzzles, bite-resistant gloves, and sedation per the clinic's policy.

In the event of an animal related injury:

- Wash the wound with soap and water.
- Report the incident to the safety coordinator.
- Seek proper medical attention for all injuries.

Bite incidents will be reported to your state or local public health department as required by law.

## Examination of Animals

When examining animals wear protective outerwear and perform hand hygiene before and after examination of individual animals or animal groups. Hand hygiene is the most important measure to prevent transmission of zoonotic disease. Every exam room should have a sink with running water, a liquid soap dispenser, and paper towels. Alcohol-based hand gels may also be provided for use in conjunction with handwashing.

Use appropriate protective equipment when examining potentially infectious animals:

- Gloves.
- Mask.
- Protective outwear.
- Safety eyewear.

Keep potentially infectious animals in a designated examination room until diagnostic procedures and treatments have been performed.

## Injections, Venipuncture, and Aspiration

When performing soft tissue or body fluid aspirations or venipuncture on animals gloves must be worn.

Animals should be restrained to minimize the risk of a needlestick injury.

- 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.
- Recap needles using the one-handed scoop technique or by using a needle recapping device.
- 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 when they are full.

## Dental

Dental procedures create infectious aerosols and there is risk of exposure to splashes or sprays of saliva, blood, and infectious particles. There is also the potential for cuts and abrasions from dental equipment or teeth.

For all dental procedures, the staff involved will:

- Wear protective outerwear.
- Gloves.
- Safety eyewear.
- Mask.

## Resuscitation

Resuscitations are particularly hazardous because they may occur without warning and unrecognized or undiagnosed zoonotic infectious agents may be involved.

In the event of a resuscitation

- Employees must wear gloves, mask, and protective eyewear.
- 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

Common zoonotic agents, including *Brucella*, *Coxiella Burnetii*, and *Listeria Monocytogenes*, may be found in high concentrations in the birthing fluids of aborting or parturient animals, stillborn fetuses, and neonates

- Wear gloves or shoulder-length sleeves.
- Mask.
- Safety eyewear.
- Impermeable outerwear.

Do not blow directly into the nose or mouth of a non-respiring neonate.

## Necropsy

Necropsy is a high risk procedure due to contact with infectious body fluids, aerosols, and contaminated sharps. Non-essential persons should not be present.

During a necropsy employees, should wear:

Cut-resistant gloves.

Mask.

Safety eyewear.

Impermeable outerwear.

If an animal is suspected of having a notifiable infectious disease, consult with the State Veterinarian before proceeding with a necropsy.

Contact information for State Veterinarian's office:

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## Diagnostic Specimen Handling

Feces, urine, aspirates, and swabs should be presumed to be infectious.

Employees should wear:

- Wear protective outerwear and gloves.
- Protective eyewear.
- Discard gloves and perform hand hygiene before touching clean items.
- When handling specimens for diagnosis feces, urine, vomitus, aspirates, and cotton swabs should be handled as if they are infectious.

Eating and drinking are not allowed in the laboratory or clinical areas.

## Wound Care and Abscesses

When bandaging wounds, performing debriement or general treatment employees should wear:

- Protective outerwear.
- Protective eyewear.
- Gloves.
- Mask.

Remember to:

- Discard used bandages.
- Handle used scissors, clipper blades and other equipment as if contaminated.
- Perform hand hygiene after removing gloves.

# Environmental Infection Control

## Cleaning and Disinfection of Equipment and Environmental Surfaces

Proper cleaning of environmental surfaces, including work areas and equipment, prevents the transmission of zoonotic pathogens. Environmental surfaces and equipment should be cleaned between uses or whenever visibly soiled.

- Wear gloves when cleaning and disinfecting cages and other surfaces in animal areas.
- Wear safety eyewear.
- Perform hand hygiene afterwards.
- Clean surfaces and equipment to remove organic matter, and then disinfectant per manufacturer's instructions.
- Clean and disinfect animal cages, toys, and food and water bowls between uses and whenever visibly soiled.
- Clean litter boxes at least once daily.
- Keep clean items separate from dirty items.

## Isolation of Infectious Animals

Patients with a contagious or zoonotic disease should be clearly identified so their infection status is obvious to everyone, including visitors allowed access to clinical areas. Prominent signage should indicate that the animal may be infectious and should outline any additional precautions that should be taken.

Animals with a known infectious disease should:

- Be placed 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 a sign-in log of all people (including owners or other non-employees) having contact with an animal in isolation.
- 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 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.

## **Laundry**

- Wear gloves and protective outerwear when handling soiled 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 Cleaning and Decontamination**

Spills and splashes of blood or other body fluids should be immediately contained with your biological spill kit. Staff members should:

- Use proper PPE (gloves, mask, safety eyewear) to protect against the potentially infective agent
- Dispose of materials you have picked up in a leak-proof plastic bag
- Keep clients, patients, and employees away from the spill area until disinfection is completed.

## Veterinary Medical Waste

Veterinary medical waste is a potential source of zoonotic pathogens. Medical waste is defined and regulated at the state level by multiple agencies, but may include sharps, tissues, contaminated materials, and dead animals. Compliance Training Partners and the AVMA recommend voluntary compliance with the *OSHA Bloodborne Pathogens Standard* in order to best protect veterinary personnel.

Insert here your local and state ordinances regulating disposal of animal waste, pathology waste, animal carcasses, bedding, sharps, and biologics. Refer to the US Environmental Protection Agency website (<http://www.epa.gov/epawaste/nonhaz/industrial/medical/programs.htm>) and the American Veterinary Medical Association website (<https://www.avma.org/PracticeManagement/Administration/Pages/AVMA-Policies-Relevant-to-Waste-Disposal.aspx>) for guidance.

## Rodent and Vector Control

Many important zoonotic pathogens are transmitted by rodents or insect vectors. The principles of integrated pest management (IPM) are central to effective prevention and control. To control rodents and insect vectors:

- Seal all entry portals.
- Eliminate clutter and any source of standing water.
- Store food and garbage in metal or thick plastic containers with tight lids.
- Properly dispose of all food waste.
- Eliminate potential rodent nesting sites (e.g. clutter, hay storage).
- Check and treat animals entering the veterinary facility for vector parasites.

## Other Environmental Controls

Staff members should also implement the following environmental controls:

- Designate an area for employees to eat and drink.
- Prohibit eating, drinking, applying cosmetics, etc., in animal-care areas or in the laboratory.
- Prohibit keeping food or drink for human consumption in the same refrigerator as food for animals, biologics, or laboratory specimens.
- Wash and store dishes for human use away from animal-care and animal food preparation areas.

# Record Keeping

Staff members should adhere to the record keeping guidelines outlined below:

## Medical Records

Medical records for each employee shall be preserved and maintained for at least the duration of employment plus thirty years.

The clinic is responsible for assuring employee records will be kept confidential. Employee medical records may include any record involving the status of an employee made or maintained by a physician nurse or other healthcare provider. Documents include:

- Medical and employment histories.
- Results of medical examinations and laboratory tests.
- Medical opinions, diagnoses, progress notes, and recommendations.
- Record of first aid received.
- Description of treatments and medications prescribed.
- Employee medical complaints.

## Staff Training and Education

Staff training and education are essential components of an effective employee health program. All employees should receive education and training on injury prevention and infection control at the beginning of their employment and at least annually thereafter. Additional in-service training should be provided as recommendations change or if problems with infection control policies are identified. Training should emphasize the potential for zoonotic disease exposure and hazards associated with work duties including:

- Animal handling.
- Restraint.
- Behavioral cue recognition.

Staff participation in training should be documented.

# Documenting Exposure Incidents

Report incidents that result in injury or potential exposure to an infectious agent to the Safety Compliance Coordinator listed below:

Safety Compliance Coordinator: \_\_\_\_\_

Any incident involving injury or a zoonotic pathogen should be thoroughly investigated and documented. Information will be collected for each exposure incident using OSHA forms 301, 300, 300A.

Incident reporting includes:

- Date, time, and location.
- Person(s) injured or exposed.
- Vaccination status of injured person(s), other persons present.
- Nature of the incident (injury, exposure, or both) and a detailed description of the first aid provided.
- Plans for follow-up (evaluation by physician, reporting to public health etc.).

Hospitals should contact their local or state health department to inquire about required reporting of bite incidents and zoonotic diseases.

# Immunocompromised Personnel

Immune deficiencies may put veterinary personnel at increased risk for acquiring zoonotic infections. Additionally, immunocompromised personnel are more likely to develop serious complications from infections. Immune deficiencies may result from underlying medical conditions (e.g., HIV/AIDS, diabetes mellitus, pregnancy, and certain malignancies), therapy for a variety of conditions (e.g., steroids, chemotherapeutic and immunosuppressive agents, and radiation), or may be congenital. Immunocompromised employees and their supervisors should be aware of the following workplace encounters that may result in exposure to zoonotic pathogens:

- Processing laboratory samples.
- Direct patient care, especially with the following high-risk animals:
  - Young animals (ruminants prior to weaning, dogs and cats less than six months of age).
  - Animals with diarrhea.
  - Parturient animals.
  - Stray or feral animals (especially predators of rodents and wildlife).
  - Animals fed raw meat diets.
  - Reptiles or exotic, imported species.
  - Animals housed in crowded conditions (e.g., shelters).
  - Unvaccinated animals or those with untreated internal or external parasites.

## Attachments

The following information is attached to the Zoonotic Disease Prevention Plan.

- Emergency services telephone numbers—fire, police, sheriff, animal control, poison control, etc.
- Reportable or notifiable veterinary diseases and where to send reports.
- State Department of Agriculture or Board of Animal Health contact information and regulations.
- State and local public health contacts for consultation on zoonotic diseases.
- Public Health Laboratory services and contact information.
- Animal waste disposal and biohazard regulations.
- Animal control and exotic animal regulations and contacts.