Animal Contact Occupational Health & Safety Program (AniCon)

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Office of Environmental Health & Safety
www.oehs.wayne.edu
AniCon Program Overview

A Board Certified Occupational Health Nurse Specialist (COHN-S) administers the Animal Contact Occupational Health Program (AniCon) in consultation with a Board Certified Occupational Medicine Physician (COMP) to provide medical services to animal researchers and animal husbandry personnel. DMC-OHS-4K clinicians provides medical treatments and services, maintains confidential records, and bills for services rendered.

AniCon Program provides medical referral services, information on animal research hazards via presentations, develops health surveillance programs, standard operating procedures (SOP), and recommends safe practices aimed at preventing or decreasing illnesses and injuries. AniCon also maintains data on animal researchers and animal husbandry personnel.

AniCon follows guidelines set forth in the National Research Council’s publication Occupational Health and Safety in the Care and Use of Research Animals. AniCon Program adheres to the mission of the Office of Environmental Health & Safety (OEHS).

Office of Environmental Health & Safety
The following excerpts are taken form OEHS mission statement:

“The Office of Environmental Health and Safety, as a division of Research Support, is committed to providing quality environmental health and safety services to Wayne State University’s students, faculty, and staff. We support WSU’s mission of excellence in research, teaching, and community service by fostering a safe and healthy work and learning environment. In collaboration with other University departments and safety oriented committees, OEHS strives to develop and implement effective health and safety programs that will ensure compliance with all local, state, and federal public health regulations. We are dedicated to adequately anticipating potential workplace hazards, preventing and reducing occupational injuries and illnesses, and providing timely response to health and safety emergencies.”

Brief Descriptions of AniCon Participants:

Division of Laboratory Animal Resources (DLAR) procures research animals and maintains a healthy and safe environment, i.e., adequate ventilation and humidity in the animal housing areas, and good housekeeping techniques. Provides education and training to researchers and animal husbandry personnel on proper care and manipulation of animals and provides animal husbandry personal protective equipment (PPE).

Animal Husbandry Personnel are trained in their areas of research support, provided safe practice education, are expected to comply with biosafety levels, adhere to standard operating procedures, and report unsafe working situations to their Supervisor.
Institutional Animal Care and Use Committee (IACUC) reviews and determines if approval is granted to research protocols involving animals. IACUC inspects facilities in which animals are held, oversees the programs involving animals used in research and teaching. During IACUC’s biannual inspections, laboratories are checked for safety.

Principal Investigators (PI) Develops and implements research protocols, ensures compliance with program requirements, and ensures that researchers on their protocol are properly trained and equipped with appropriate PPE to safely perform research duties.

Animal Researchers are trained in their areas of research, provided safe practice guidelines, are expected adhere to biosafety levels, comply with standard operating procedures, and report unsafe working situations to their PI.

Brief Descriptions of Surveillance Programs & Medical Services

Surveillance Programs

Risk Assessment Questionnaire
Animal Allergy Periodic Screen Questionnaire
Select Toxin Questionnaire
Carcinogen Questionnaire
Audiograms: noise exposure evaluations

Medical Workups

Physical examination
Allergy assessments; animal allergies, latex allergies
Vaccinations/titers
Tuberculosis screen
N95 Respirator fit test
Pulmonary function test
Blood: CBC with differentia
Urine analysis
Liver function test (LFT)
IgE antibody testing (RAST or ELISA)

Vaccines Available

Td: Tetanus diphtheria
TDap: Tetanus, diphtheria and pertussis
Hepatitis A & B
Measles, mumps, rubella (MMR)
Influenza
Rabies
Meningitis
Vaccinia
Pneumococcal
Immune Globulins
Animal Allergies

Allergic reactions to animals are one of the most common conditions that affect personnel involved in the care and use of research animals. Animal allergies develop as a result of repeated exposure to animal proteins found in animal urine, saliva, and dander. This exposure occurs by way of inhalation, skin, or mucous membrane contact. Generally symptoms can develop within 6 months to 3 years of exposure. Most common symptoms are; runny nose, watery itchy eyes, nasal congestion, skin rash, cough or wheezing, and shortness of breath.

All species of laboratory animals can trigger an allergic reaction. However in the laboratory research setting allergies to mice, rats, rabbits, guinea pig, cats and dogs, are most common. Risk factors for becoming allergic to laboratory animals include; intensity of exposure, medical history, and smoking. Because animal allergies can develop into a chronic disease such as asthma, and can also result in a life threatening condition such as status asthmaticus or anaphylactic shock it is very important to prevent the development of animal allergies.

Research personnel are educated on how to prevent animal allergies and are also advised to follow safe practice guidelines, participate in animal allergy surveillance programs, and follow up with medical evaluations and treatments for allergy symptoms.

Zoonotic Diseases

Zoonotic diseases can infect both animals and humans and are transmissible between animals and humans. The Center for Disease Control (CDC) is an excellent source on zoonotic diseases and other infectious diseases. Visit the CDC web site at www.cdc.gov for more definitive information on zoonotic diseases.

Reproductive Concerns

Women who become pregnant or are planning to become pregnant are encouraged to inform their PI, supervisor and/or the Occupational Health Specialist. If the women and/or her physician indicate work related task poses a health risk WSU will provide reasonable accommodations to mitigate the risk. WSU will restrict work and/or re-assigned work duties that pose reproductive risk. Some reproductive concerns include:

1. Handling pregnant sheep, their placentas, or other birth products
2. Handling cat litter or other objects in contact with cat feces
3. Exposure to chemicals, radiation, or select biological agents
4. Heavy lifting and prolong standing
Specific Clinical Concerns

Wounds: punctures, cuts, bites, scratches, burns
Allergies: animal, latex, biological, chemical
Biological and chemical exposures
Musculoskeletal disorders
Acute injuries and illnesses

Pre-existing Medical Conditions

Immunocompromised personnel and those with other pre-existing medical conditions are required to inform the Occupational Health Specialist of their health condition and their concerns regarding potential exposure to animals or infectious agents. To mitigate risk associated with animal research WSU provides reasonable accommodations. Risk for certain pre-existing medical conditions include:

1. Handling certain biological agents i.e., vaccinia vectors
2. Handling cat litter or other objects in contact with cat feces
3. Handling animals that can exacerbate respiratory illnesses
4. Handling pregnant sheep, their placentas, or other birth products
5. Exposure to chemicals, radiation, or select biological agents

Ergonomics and Muscular Skeletal Disorders (MSDs)

Animal care personnel’s duties include; cleaning and processing cages, medicating and monitoring animals, watering and feeding animals. Some work tasks require repetitive handling and lifting animals and objects. On occasions strenuous physical work requires heavy lifting. Animal care task presents risk for developing muscular skeletal disorders (MSDs). MSDs are injuries and illnesses that affect muscles, nerves, tendons, ligaments, joints, or spinal disc, examples are; carpal tunnel syndrome, rotator cuff syndrome, and low back pain.

Ergonomic education on eliminating work hazards and how to avoid or decrease injuries is provided to animal care personnel. Staff is encouraged to report work hazards, request help when handling animals or objects above 25 lbs., document injuries, seek medical care when injured, and follow treatment plans.

Chemical, Radiation, & Biological Exposures

Chemical and biological agents that personnel can potentially become exposed to are discussed in OEHS Biosafety Manual and the Chemical Hygiene Plan. For information on radiation safety, laser safety, biosafety levels, handling hazardous materials, disposing of hazardous waste visit: www.oehs.wayne.edu. OEHS also provides mandatory training sessions, including laboratory safety and bloodborne infectious diseases training.
Safe Work Practice Guidelines Include:

- Adhere to the biosafety level indicated for specific research protocol.
- Post biosafety signage indicating nature of potential hazard.
- Review the SDS on specific agent used in the animal research protocol.
- Adhere to standard operating procedures (SOP) to mitigate transmission of diseases.
- Complete required health and safety training sessions and adhere to safety guidelines.
- Decontaminate spills or splatters of potentially infectious blood, and/or body fluids with a 1:10 dilution of bleach (1 part bleach to 10 parts water).
- Dispose of needles and sharps in Sharps Containers.
- Minimally wear protective gloves, lab coat/gown, and N95 mask. Note that goggles, hair bonnets, and shoe covers will provide additional protection.
- Contain operations that generate hazardous aerosols in biological safety cabinets or other ventilated enclosures.
- Wash hands after removing or discarding protective equipment.
- Use secondary leak proof containers to store or transfer cultures tissues or potentially infectious agents.
- Limit access to DLAR animal facilities to authorized personnel.
- Practice frequent hand washing and good housekeeping.
- Work carefully to avoid creating splashes and aerosols.

Medical Care & Emergencies Care

DMC-OHS -4K: Available during business hours (7:00 a.m. – 5:00 p.m.) for medical care. The Occupational Health Services clinic is located at Detroit Receiving Hospital University Health Center, 4201 St. Antoine, 4th floor, area: 4K. Phone: 313-745-4522, Fax: 313-745 3263

DMC-DRH- ER: Provides 24-hour emergency medical care. The ER Nurses’ station phone number: (313) 745-3356. If personnel are sent to ER with an urgent condition, chemical, or biological injury call the Triage Desk: (313) 966-8604 to expedite services and convey important information such as Safety Data Sheet (SDSs) about the chemical or biological substance. ER Fax: (313) 745-3455 to transmit documentation.

EMERGENCIES: Transportation due to medical conditions, emergencies due to public safety situations call WSU Public Safety: (313) 577-2222. Emergencies spills or exposures to chemicals, radiological material, or biologicals call WSU Office of Environmental Health and Safety: 313 577-1200, (8:30 a.m. – 5:00 p.m.) After business hours call WSU Public Safety: (313) 577-2222, or 7-2222 from a WSU telephone.
REFERENCES


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