

STANDARD OPERATING PROCEDURE
TUSKEGEE UNIVERSITY ANIMAL CARE AND USE COMMITTEE

MEDICAL MONITORING AND OCCUPATIONAL HEALTH
AND SAFETY PROGRAM FOR ANIMAL USERS AND SUPPORT STAFF

I. Introduction

The National Institutes of Health (NIH) requires each university receiving federal support for research involving vertebrate animals to establish a medical monitoring and occupational health and safety program (MMOHSP) for personnel with animal contact. Following the guidelines of the NIH and working in conjunction with a medical services provider (Student Health), Tuskegee University developed a MMOHSP. The purpose of the program is to provide guidance on the diagnosis, treatment, and prevention of diseases transmitted from animals to man (zoonotic diseases) additionally, a comprehensive educational program was established to inform personnel about zoonosis, personal hygiene, and other important safety issues related to animal use.

This manual was developed to provide a description of the Medical Monitoring and Occupational Health and Safety Program being implemented by Tuskegee University. The program is intended to meet or exceed health and safety requirements established by the NIH and is designed to protect individuals working with vertebrate animals.

II. Risk Assessment for Animal Users

Supervisors providing oversight for employees required to perform animal care or use duties must perform a job risk assessment. Within this context, animal care supervisors and principal investigators using animals must provide special occupational programs for those individuals.

The assessment must identify employee-related hazards and institute means to eliminate or minimize such hazards or risk using engineering practices, personal protective equipment, preventative vaccination, and training. Occupational exposure is defined as reasonably anticipated risks of injury or illness that may result from the performance of an employee's duties.

- 1) Individuals at risk while performing veterinary care, husbandry and animal use duties.
 - a. Veterinarians working in the animal care and use program
 - b. Animal care technicians
 - c. Students working on animal related training or research protocols
 - d. Research support staff with animal contact
 - e. Veterinary Students

- 2) Occupational risks and prevention for individuals performing animal care husbandry and animal use related duties:

a. Diseases transmission hazards associated with working with animal resulting to mild fatal illness:

i. Zoonotic agents:

1. Viral: Rabies, Lymphocytic choriomeningitis
2. Bacterial: *Campylobacter* sp., *Pasteurella Multocida*, *Tetanus* sp., *Tuberculosis*, *Salmella* *Brucella* sp.
3. Fungal: *Microsporium* sp., *Trichophyton* spp

b. Use appropriate personal protective equipment (PPE)

- i. Gloves, masks, respirators, and head covers
- ii. Goggles and face shields, ear plugs
- iii. Laboratory coats and work uniforms
- iv. Shoe covers, booties and boots

c. Observe risk reduction work practices

- i. Wear designated laboratory apparel at all times when working with animals.
- ii. Do not drink, eat, smoke or apply lipstick in laboratory animal use or housing space.
- iii. Wash hands after handling animals or animal specimens.

d. Means of minimizing disease transmission risks

i. Employee engineering controls to minimize exposure:

1. Make use of sharps disposal containers
2. Assure comprehensive implementation of pest and vermin control program

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- I. Participate in preventative medicine program
 - i. Receive a physical examination as required to complete assignment
 - ii. Receive tetanus booster or immunization as required.
 - m. Response to an exposure, accident or emergency:
 - i. If scratched or bitten follow first aid procedures
 - ii. Report all possible exposures or injuries to supervisor and seek medical treatment appropriate.
- 3) Allergies and Other allergic responses associated with animal care and use:
- a. Agents causing allergies:
 - i. Animal dander, fur and urine
 - ii. Latex gloves
 - iii. Chemical allergy
 - b. Means of minimizing risk of injury:
 - i. Employ engineering controls to minimize exposure
 - 1.

- ii. Personal protective equipment
 - 1. Wear proper personal protective equipment when working with animals
 - 2. Use specialized gloves and other gear when needed to handle fractious animals
- iii. Employ good work practices:
 - 1. Employ appropriate animal handling and restraint techniques for species.
 - 2. Be alert of signs of fear or aggression in animals
- iv. Participate in the medical monitoring program
 - 1. Assure tetanus vaccination is current
- v. Response to an exposure, accident or emergency:
 - 1. If scratched or bitten, follow first aid procedures
 - 2. Report all possible exposures or injuries to your supervisor and seek medical treatment as is appropriate.

5) Contaminated Needle Puncture, Cut:

- a. Nature of Risk:
 - i. Superficial wound
 - ii. Painful infected wound of an acute or chronic nature.
 - iii. Serious life threatening injury or infection
 - iv. Injection of drug, chemical agent or biological agent with consequences based on agent and amount received.
- b. Means of Minimizing Risk or Injury:
 - i. Engineering Controls:
 - 1. Use sharp containers to dispose of needles, syringes and other sharp objects
 - ii. Work Practices:
 - 1. Employ appropriate animal handling and restraint techniques for animal/species.
 - 2. Get appropriate assistance when required in handling and uncontrollable animal.
- iii. Participate in preventative medical monitoring program:
 - 1. Receive annual physical as specified as substantial animal user.
 - 2.

- e. Response to accident or injury
 - i. Practice preventive measure by having hearing tested on an annual basis if noise level equals or exceeds 85 dB.
 - ii. Use medically prescribed hearing aids if required.

III . VERTEBRATE ANIMAL USERS INCLUDED IN THE PROGRAM

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days and times for medical screening. The subject individual must report to the Medical Services Provider. The University will be billed directly for the services rendered, so there is no cost to the individual.

c. Waiver of Medical Screening

The waiver statement listed below must be reviewed and signed by vertebrate animal users refusing the opportunity to participate in the medical screening program. The statement reads as follows:

Waiver of medical monitoring procedures

I have been offered the opportunity to my exposure to animals, and I have declined the service. I understand that in the future if I continue to have vertebrate animal exposure at Tuskegee University, and I wish to participate in the medical monitoring program, I can do so by contacting the MMOSHP Coordinator.

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physician. Individuals electing not to take the rabies-exposure vaccination must sign a waiver.

h. Q-Fever

Q-fever is a Rickettsial zoonosis caused by *Coxiella burnetii*. Domestic ungulates such as sheep, cattle and goats usually serve as the reservoir for humans and shed the organism in their urine, feces, milk and especially their birth products. Humans can acquire the infection by inhalation of infectious aerosols and dusts in which only a single inhaled organism can cause infection. Clinical features of Q-fever are diverse and vary from subclinical infection to pneumonia, hepatitis or endocarditis. Enclosed sheep holding and care facilities should be designated biohazard areas. No unauthorized personnel should be permitted in this restricted area.

3) PREVENTIVE MEASURES

a. Personal Hygiene

There are a number of personal hygiene issues, which apply to all workers exposed to animals. There should be no eating, drinking, or application of cosmetics in areas where animals are used. All work surfaces shall be decontaminated daily and after any animal related spills. Laboratory coats must be worn over street clothes when working with animals. Personal protective devices or equipment must be used appropriately. Thorough hand washing must be performed after handling animals and prior to leaving the laboratory.

b. Health Education Information

Periodic instruction concerning zoonotic diseases (those diseases transmitted from animal to man) will be provided on an annual basis, or more frequently if needed. Instruction will include, but is not limited to, precautionary procedures available to prevent accidents or contraction of an illness, the proper handling of animals, and review of administrative procedures for the MMOHSP, using handouts, video/audio tapes and lectures.

IV. SUMMARY OF PROPOSED PROGRAM

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