

STANDARD OPERATING PROCEDURE

OCCUPATIONAL HEALTH DEPARTMENT

Section 4: Worker Protection Program
SOP 4.01 (formerly 11P-01) Worker Protection Program Procedure

RESPONSIBLE OFFICE: Occupational Health

EFFECTIVE DATE: 2.21.2014

PURPOSE

The purpose of the Worker Protection Program (WPP or Program) is to promote a safe work environment by minimizing the risk of illness or injury associated with working with or around research animals through the provision of:

- Education for animal-exposed personnel
- Health history evaluation and screening
- Occupationally indicated immunizations and testing
- Clinical evaluation and treatment for individuals with animal related injuries or illness
- Workforce health surveillance

APPLICABILITY

This Program procedure applies to Occupational Health Department employees.

GENERAL PROCEDURES

Worker Protection Program orientation and training is conducted by the Institutional Animal Care and Use Committee (IACUC). At this time instructions are provided for completion and submission of the initial Health History Questionnaire (HHQ). After the initial HHQ submission, enrollees will receive an annual automated email from the ERGO Research portal during their birth month as a reminder to submit their Annual Follow-up Health History Questionnaire.

After the employee completes and submits the HHQ, the Worker Protection Program nurse will evaluate each submitted Health History Questionnaire within 2 business days. When the WPP nurse is unavailable, the Occupational Health Department manager will ensure a similarly trained nurse is available to timely evaluate HHQ submissions.

The WPP nurse will evaluate the individual enrollee's submitted HHQ, for risk based on the worker's:

- Work environment
- Medical and immunization history
- Current health assessment
- Species of animal(s) exposure

The WPP nurse will provide general allergy education material and species specific educational materials individualized to each enrollee's risk which includes:

- General allergy information
- Allergy hazards for species specific exposure
- Infectious disease and physical hazards for the specific animal exposure
- How to protect themselves

The WPP nurse will make follow-up recommendations individualized to each enrollee generally for one or more of the following reasons:

- Further medical evaluation in clinic
- PPE Evaluation - Respirator fit testing

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- Immunizations or proof of immunity titers
- Baseline testing, such as TB testing or serologic testing
- Further education and health counseling, i.e. pregnancy

If the enrollee declines follow-up care, a specific entry regarding this declination will be placed into the worker's employee health record for easy access in the event of an exposure or the need for other medical evaluation occurs.

The WPP nurse will place the enrollee in specific surveillances depending on work environment, health risk and/or research protocol. These surveillances include, but aren't limited to:

- Tuberculosis surveillance
- Yellow Fever
- Polio
- Q Fever
- Tularemia
- Hepatitis B

At the end of each month, Occupational Health will send an email reminder to those enrollees who did not complete their annual Health History Questionnaire.

For those workers who do not have access to ERGO to complete the electronic form, a pdf copy will be available for them. The WPP nurse will contact the IACUC office when these enrollees' forms have been evaluated.

SPECIFIC SERVICES:

Medical Evaluations

- Injuries
 - Wound evaluation and treatment for non-emergent injuries, including tetanus booster if indicated.
 - Referral to UT Southwestern UH Emergency Department for emergent injuries.
 - Inhalation, percutaneous or mucous membrane exposures are treated according to the specific Post-Exposure protocols.
- Illnesses and Infections
 - Enrollees receive individualized species specific educational material identifying infectious disease hazards and presentation in people, and are encouraged to seek medical evaluation in Occupational Health if they experience signs or symptoms similar to these presentations.
- Allergies
 - Allergy symptom evaluation for non-emergent symptoms.
 - Referral to UH Emergency Department for emergent anaphylactic symptoms.

Immunizations:

- Tdap (Tetanus, Diphtheria and Pertussis) vaccination will be offered if there is no previous history of Tdap vaccination irrespective of last dose of Tetanus booster.
- Td (Tetanus and Diphtheria) booster will be offered ten years after Tdap vaccination date or sooner if there is an injury where it is deemed necessary.
- Hepatitis B vaccination series will be offered to enrollees who use human tissue as part of their lab research.
- MMR (Measles, Mumps and Rubella) vaccination series will be offered to those enrollees who work with any of these viruses in their research lab.
- Influenza vaccination is offered to all enrollees and is strongly encouraged for those who work with and

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around the influenza virus as part of their work environment.

- Rabies vaccination series will be offered to enrollees working with or around the rabies virus as part of their work environment.
- Polio vaccination is offered to enrollees who work with or around polio as part of their work environment.
- Yellow Fever vaccination is offered through the Dallas County Department of Health to enrollees who work with or around Yellow Fever as part of their work environment.
- Specific vaccination information is found in Occupational Health Policy Manual Section 9: *Vaccine Information and Administration Guidelines 9.02*.

Tuberculosis Screening:

- Tuberculosis screening using Quantiferon Gold (QFT) blood testing will be conducted if the enrollee works with or around mycobacterium tuberculosis as part of their work environment.
- Tuberculosis screening will be annually on the enrollee's birth month.
- For enrollee's working in high risk labs, TB screening will take place every six months and the Tuberculosis Risk Questionnaire will be completed every 3 months, although these time frames may change depending on the enrollee's environmental risk of exposure.
- If the enrollee has a previous positive TB skin test, a baseline QFT will be drawn.
- Evaluation of positive QFTs will follow the Occupational Health Policy & Procedure 13.02: *Tuberculosis Surveillance*.

Serologic Titer Testing:

- *Coxiella burnetii* baseline antibody titers will be drawn for those enrollees who are at high risk of developing Q fever through working with or around sheep or goats or the *Coxiella burnetii* organism:
 - Valvular or congenital heart disease
 - Mechanical or prosthetic heart valve
 - Immunocompromised
 - Over the age of sixty (60)
 - Renal failure
- Toxoplasmosis baseline antibody titers will be drawn for the female enrollee of childbearing capacity working with or around toxoplasmosis.

Respirator Mask Fit Testing

- Respirator mask fit testing for those enrollees who handle animals or where it is necessary for their work environment, i.e., biohazards, cage washers, etc.
- Respirator mask fit testing for those whose medical history puts them at risk for allergies or have allergy symptoms
- Supervisors of areas which require N95s are responsible for referring their employees to Occupational Health for the mask fit test.
- A medical evaluation questionnaire for respirator use will be completed prior to mask fit testing.

Allergy screening/testing

- Through the HHQ, the enrollee will be screened for risk of developing work related allergies
 - Medical history of pre-existing animal allergies (especially to household pets)
 - Personal or family history of asthma
 - Seasonal allergies
 - Dermatitis, Eczema
- Any enrollee who is at risk for developing work related allergies will be educated regarding signs and symptoms of allergic reactions and the importance of reporting symptoms to Occupational Health.
- Any HHQ that reveals allergy symptoms to lab animals will be offered:
 - Allergy testing through Occupational Health and referral as needed.

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- PPE evaluation for possible modification or level increase

- Any HHQ that reveals urgent or emergent allergy or asthma symptoms, the enrollee will be contacted immediately for either an Occupational Health or Emergency Department evaluation depending on the urgency.

SPECIFIC PRE-EXPOSURE PROCEDURES

Polio Virus

- A Polio vaccine is indicated for those enrollees directly involved with Polio or Polio virus recombinants.
- For those enrollees who have never been vaccinated against polio or whose vaccination status is not documented will receive the polio vaccination series.
- Enrollees with documentation of the primary series will receive a single lifetime booster dose of the vaccine.
- The Polio virus may be transmitted in the following ways: 1) a skin puncture or injection, 2) ingestion, 3) contact with mucous membranes (eyes, nose, or mouth), 4) contact with non-intact skin, and 5) bite from an infected animal.
- Enrollees working with or around the Polio virus will be placed in the Polio surveillance.

Mycobacterium Tuberculosis

- A baseline Quantiferon (QFT) blood test and a TB risk questionnaire are indicated for those enrollees working with or around Mycobacterium Tuberculosis.
- A QFT blood test will be drawn every six months.
- A TB risk questionnaire will be required every 3 months.
- Any tissue from infected animals may pose a risk of infection. The greatest hazard is from concentrated cultured materials.
- Mycobacterium Tuberculosis may be transmitted through 1) Inhalation of aerosolized bacteria, 2) Contact with mucous membranes (eyes, nose, or mouth).
- Enrollees working with or around Mycobacterium Tuberculosis will be placed in the TB surveillance.

Yellow Fever

- A Yellow Fever vaccine is indicated for those enrollees directly involved with the Yellow Fever virus.
- Occupational Health will refer the worker to the Dallas County Health Department for immunization.
- A booster dose is recommended every ten (10) years.
- Yellow Fever virus may be transmitted through: 1) a skin puncture or injection 2) contact with non-intact skin.
- Enrollees working with or around Yellow Fever will be placed in the Yellow Fever surveillance.

Q Fever

- A baseline *Coxiella burnetii* antibody titer is indicated for those high risk enrollees within 30 days of working with or around sheep/goats or the *Coxiella burnetii* organism for evidence of any previous exposures. The following are considered high risk enrollees:
 - Valvular or congenital heart disease
 - Mechanical or prosthetic heart valve
 - Immunocompromised
 - Over the age of sixty (60)
 - Renal failure
- All enrollees working with or around goats/sheep or the *Coxiella burnetii* organism will be:

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- Educated about the signs and symptoms related to Q fever and the importance of PPE use.
- N95 respiratory mask fit tested.

- High risk enrollees working with or around sheep/goats or the coxiella burnetii organism will be placed in the Q Fever surveillance.
- Q Fever may be transmitted through 1) direct contact of the lesions, 2) aerosolized infected body fluids.

Rabies Virus

- A rabies vaccination series is indicated for those enrollees working with or around the rabies virus as part of work environment
- A rabies antibody titer is not necessary as exposure is infrequent and post-exposure prophylaxis is the same regardless of titer results.
- Rabies may be transmitted through 1) bite from an infected animal, 2) contact with an open wound 3) contact with mucous membranes

POST EXPOSURE PROTOCOLS

Disease and organism specific post-exposure protocols which provide guidelines for care of workers after an exposure are located in separate Occupational Health procedure documents.

REPORTING

The WPP will provide monthly reports to the IACUC with the following:

- Number of HHQs submitted and reviewed the preceding month
- Number of initial and annual HHQs submitted
- Number of declinations for Occupational Health Department follow-up
- Trends noted in annual follow-ups
- Clinical events involving animal use
- Percentage of submitted HHQs evaluated within a two business day timeframe

REFERENCES

NIOSH, [Preventing Asthma in Animal Handlers](#) 1998

NIH, [Office of Animal Care and Use Animal Exposure Program](#) Occupational Medical Service, 5/11/10

CDC, [Diagnosis and Management of Q Fever - United States, 2013: Recommendations from CDC and the Q Fever Working Group](#) March 29, 2013 / 62(RR03);1-23

CDC, [Rabies - Chapter 3 - 2014 Yellow Book](#)

[Occupational Health Policy Manual, Section 11: Worker Protection Program](#)

REVIEW, REVISION, AND APPROVAL HISTORY

Reviewed & Revised February 20, 2014 – Sherry Clark, Dr. Adebese Obafemi

CONTACT FOR FURTHER INFORMATION

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