



Guidelines for Reducing the Risk of Exposure to the Q Fever Agent (*Coxiella burnetii*) for the University of Wisconsin- Madison

1.0 Objective

In order to protect University of Wisconsin Madison faculty, staff, students, volunteers, and visitors from exposure to the Q fever agent (*Coxiella burnetii*), the UHS Environmental & Occupational Health Unit has developed a set of recommended practices to minimize the risk of exposure to potentially infected sheep, cattle and goats.

2.0 Related Documents

- *C. burnetii* Exposure Medical Response Guidance, UHS Occupational Medicine Program

3.0 Overview

In the United States, Q fever outbreaks have resulted mainly from occupational exposure involving veterinarians, meat processing plant workers, sheep and dairy workers, livestock farmers, and researchers.

Q fever or coxiellosis is caused by a rickettsial bacterium called *Coxiella burnetii*. Large numbers of organisms (up to 10^9 organisms per gram of tissue) may be present in placenta, fetal membranes and the amniotic fluids of pregnant animals. The organism may also be found in more moderate concentrations in the milk, urine, and feces of infected animals. Sheep, goats and cattle infected with *C. burnetii* usually shed the agent with no outward signs of disease. *C. burnetii* has a very low infectious dose (1-10 organisms) and is highly resistant to heat, drying, and many common disinfectants. The organism can persist for months in contaminated soils.

4.0 Mode of transmission

Human infection usually occurs through inhalation of contaminated dusts and aerosols generated by infected animals, their waste products, placental tissues and fluids, and contaminated straw or bedding. In addition to inhalation, the agent may also enter the body by ingestion, contamination of wounds, sexual contact with an infected individual or contaminated needle sticks.

5.0 Symptoms of Q fever

Acute *C. burnetii* infections are usually asymptomatic and resolve uneventfully, but clinical signs of infection can include fever, chills, headache, sweats, muscle aches, anorexia, and weakness. The acute illness usually lasts for one to four weeks. Symptoms may progress to pneumonia, hepatitis,

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myocarditis, or meningitis, and in one to two percent of clinical infections, the disease may be fatal. Chronic Q fever develops in less than 5% of persons with acute Q fever. Typically, these persons are pregnant or immunosuppressed. The chronic form of the disease can result in cardiovascular disease, hepatitis, or adverse effects on pregnancy. It may take months or years after the acute infection for the patient to exhibit clinical signs of chronic Q fever. Anyone experiencing symptoms of acute or chronic Q fever infection and who has worked with or in close proximity to livestock and associated tissue should immediately contact their physician, or the Occupational Medicine Program at 265-5610.

6.0 Persons at increased risk for developing Q fever

The following conditions indicate an increased risk for developing Q fever or serious complications from Q fever:

- Valvular heart disease
- Pregnancy
- Prosthetic heart valves or vascular grafts
- Liver disease
- Decreased immune function from any cause, including, but not limited to corticosteroid use, chemotherapy, HIV infection, or diabetes

Persons with these health conditions should consult with their physician and occupational health program before beginning any work with sheep or goats. Medical consults can be arranged with an occupational medicine physician to discuss health concerns prior to starting work and following possible exposure events.

7.0 Herd Surveillance

Sheep and goats coming to the UW Madison agricultural facilities should be held in an isolated quarantine area until Q fever negative test results are obtained. Animals testing positive for antibody should have a PCR test performed. Animals that are PCR positive should either be retested or euthanized. If animals are to be retested, it should be done during time of stress such as parturition and early lactation to maximize potential for detecting organism shedding. Test records should be managed by the attending veterinarian and herd manager. If an animal with a PCR positive test is encountered, staff members who have worked in close proximity to that animal should be informed of the findings by the attending vet and asked to be vigilant for symptoms of infection.

Serological testing of pregnant sheep and goats provides some information in determining if an individual animal has been infected with *C. burnetii*, but is not always reliable. Shedding patterns may vary and the presence of a positive titer is not always indicative of current infection. Supervisors with employees working with these animals must maintain procedures which limit contact with potentially infected sheep or goats. While herd surveillance and efforts to prevent introduction of infected sheep into the University are very appropriate, safety is best achieved by practicing standard precautions and managing animals and associated tissues as infectious.

8.0 Medical Monitoring of Personnel

The most important element in medical surveillance for Q fever is an awareness of symptoms by those who work with livestock and a willingness to discuss possible Q fever infection with their healthcare provider. The University has not adopted a mandatory serum banking or testing program for the following reasons.

- A patient would not be treated for a positive titer in the absence of active symptoms.

- Many engaged in sheep or livestock activity will have already had past exposure and therefore positive titers.
- Diagnosis is best made based on acute versus convalescent blood draws when symptoms are present.
- A positive titer will not be indicative of where or when exposure came from as employees and students may have had sheep/livestock contact at multiple locations or away from work.

A medical response plan has been developed for *C. burnetti*. The plan documents information about how Q fever is acquired, signs and symptoms and medical response guidance. Principle investigators and supervisors are encouraged to share this plan with staff who may work with livestock on campus. The response plan is included in Appendix III.

In the event of a confirmed case of Q fever among staff, close contacts will be contacted by the occupational health program and offered serum testing and medical evaluations through the UW Infectious Disease Clinic.

9.0 Recommended Practices

While *C. burnetii* may be common in agricultural settings, it is not so in other locations such as hospitals and laboratories. Therefore more aggressive containment measures are often employed to protect those with weakened immune systems and those who have not had prior exposure or infection.

9.1 General Practices

- a. If disease status of animals is unknown, it should be assumed that the animals are infected with *C. burnetii*.
- b. All individuals who will work with livestock must initially complete the Occupational Health Program Safety Training for Personnel with Animal Contact. The supervisor of their sheep-related work should also review information about the transmission, health impact and control of Q fever and other zoonotic agents they may encounter. The medical response plan mentioned earlier is a good resource to guide this communication. Another resource is the material safety data sheet for *C. burnetii* published by Health Canada and can be accessed at: <http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/coxiella-burnetii-eng.php>.
- c. Appropriate personal protective equipment (PPE) should be utilized while working with livestock. PPE should include disposable or on site-laundered jumpsuits, coveralls or scrubs, booties or dedicated footwear. However, individual facilities may have other more stringent requirements that need to be followed.
- d. The Animal Care and Use Committee (ACUC) and/or UW Madison Environment, Health and Safety Department personnel shall perform semi-annual inspections of all sheep facilities. They will audit work practices, PPE, and engineering controls.

9.2 Agricultural Facilities

- a. Personnel working with sheep or goats at birthing time should take additional precautions to limit exposure to themselves or others. Precautions should include showering and changing clothes or removing coveralls before leaving work, and separate and frequent laundering of work clothes. Persons at high risk of complications from Q fever (described above) should avoid sheep and goat contact during birthing.
- b. Personnel handling sheep or goats must wash their hands and arms thoroughly with a germicidal soap before leaving the animal facility.

- c. Appropriate personal hygiene standards should be followed in all animal use areas. No eating, drinking, or application of cosmetics in animal use areas.
- d. Potentially contaminated materials including placenta, amniotic fluid, aborted fetuses, and bedding contaminated with birthing fluids should be promptly removed and disposed of taking care to minimize dust generation or formation of aerosols.
- e. Transport of animals to and from agricultural facilities should follow standard practices for livestock transport.

9.3 Hospitals and Surgical Procedure Rooms

- a. The use of sheep or goats in a hospital facility should not occur unless an infection control risk assessment has been performed by the infection prevention and control program of the receiving hospital. The risk assessment should evaluate containment strategies such as:
 - Maintenance of appropriate negative pressure differentials in procedure rooms and housing areas compared to surrounding spaces,
 - Proximity to patient care units, particularly to those with compromised immune patients,
 - Clothing changes of lab staff prior to entering common areas,
 - Use of HEPA filtered carts to transport animals,
 - Dedicated elevator use, and
 - Disinfectant practices.
- b. Indoor housing, research, and/or procedure areas for sheep and goats must be confined to areas having no recirculation of air to other rooms. These rooms must be posted with a biohazard sign. Laboratories using sheep or goats and animal care areas housing these animals should be strictly off limits to anyone who does not have a specific need to be there.
- c. Surgical instruments must be cleaned and autoclaved.
- d. Exposed personnel must not leave the surgical area except to access adjacent locker facilities for showering, scrub laundering, and subsequent changing to street clothes.
- e. Any invasive surgery of the abdominal cavity of a pregnant ewe must be done in a dedicated surgery facility. Research personnel should follow standard operating room recommendations for USDA-regulated species. Personal protective equipment for surgical personnel should include a powered air purifying (PAPR) or N95 respirator, hair covers, sterile gloves and gown, shoe covers, and surgical scrubs (*see Appendix I below*).
- f. Potentially contaminated materials including placenta, amniotic fluid, aborted fetuses, and bedding contaminated with birthing fluids should be promptly removed and disposed of as a biohazardous material. Care should be taken to minimize aerosolization. These materials shall be handled using standard precautions and disposed of using appropriate biosafety measures. Surfaces in contact with contaminated materials should be disinfected following guidance in Appendix II.

9.4 Laboratories

- a. Personnel engaged in diagnostic tissue work must participate in the occupational health program and be educated about the risks and preventive measures associated with Q fever.
- b. Animal tissues for non-propagative diagnostic testing from sheep, cattle and goats should be treated as BSL2.
- c. Aerosol generating activities such as pipetting, vortexing and centrifugation should be done in a biosafety cabinet.

- d. When samples are identified as suspect for Q fever, staff must wear an N95, goggles, gloves and protective clothing.
- e. Tissue transport outside of the lab should be done in a durable, leak-proof container, the outside of which has been decontaminated following guidance in Appendix II.
- f. When positive *C. burnetii* results are obtained, staff in the work areas should be notified and asked to be vigilant in self-monitoring for related symptoms. Onset of symptoms must be reported immediately to the supervisor, occupational health officer, and occupational health nurse by calling 265-5610. Medical attention should be sought immediately and the physician must be informed of possible exposure to *C. burnetii*.

10.0 Review

This guidance shall be reviewed every three years by the occupational health program.

11.0 Students

Students working with livestock must be educated about the zoonotic agents they may encounter through the course of their work. This can occur in many ways such as participation in animal safety training, curricular instruction or discussion between instructor and student. It is important for the instructor or supervisor to verify that staff and students understand zoonotic risks associated with work, signs and symptoms, relevant precautions and SOPs and appropriate response if symptoms are experienced.

12.0 Document Revisions:

Revision History		
Revision Number	Revision Date	Description of Revision
1	03/08/2017	Formatting, ag language review, inclusion of MRP
2		

Coordinated by: Director of Environmental & Occupational Health

Reviewed: 03/08/2017

Approved by EOH:

Appendix I

Appropriate personal protective equipment (PPE)

Indoor housing, procedure, surgical, necropsy and research areas should require at a minimum disposable or on- site or commercially laundered jumpsuits, coveralls or scrubs, and booties or dedicated footwear. A powered air purifying respirator (PAPR) or N95 respirator are recommended when individuals may be at increased risk of Q fever-related complications and choose to continue with sheep-related work., *Note: PAPR/N95 respirator use requires enrollment in the UHS Environmental & Occupational Health Respiratory Protection Program. Personnel must be trained in procedures to properly select, don and remove PPE.

In non-agricultural settings, all disposable PPE shall be left onsite in biohazard bags or autoclaved prior to disposal. In agricultural settings, disposable PPE can be discarded in trash. All reusable PPE shall be appropriately disinfected following guidance in Appendix II or other site-specific practices. Care should be taken to assure that the disinfection agent is compatible with the materials the PPE is made of. Surgical scrubs and gowns shall be autoclaved prior to laundering.

The following PPE should be required for sheep and goat surgical or necropsy procedures:

- a. Onsite or commercially-laundered scrubs
- b. Leak proof/moisture repellent surgical gown
- c. Gloves
- d. Booties or dedicated footwear
- e. Goggles
- f. PAPR/N95 respirator

Disposal and Disinfection of PPE

In non-agricultural facilities, all disposable PPE shall be left onsite in biohazard bags. Reusable PPE shall be appropriately disinfected following guidance in Appendix II. Surgical gowns and scrubs should be autoclaved prior to laundering.

Appendix II

Disinfectants Appropriate for Sheep and Goat Work

Disinfectants that have been found to be effective against *C. burnetii* include 70% ethanol, MicroChem-Plus and 5% Chloroform, within 30 minutes^{1, 4}. The use of chloroform is strongly discouraged due to toxicity concerns. Other disinfectants such as lower concentrations of bleach, formalin and Lysol have been found to not be effective. Gas sterilization with formaldehyde can be effective when adequate humidity is provided. Virkon S is referenced as effective in product literature outside of the United States. Concentrations of 1-2% have been referenced as substantially reducing *C. burnetii* viability.^{2,3}

Regular thorough cleaning and disinfection of animal facilities with particular care of birthing areas, surgery, and necropsy rooms will help reduce the amount of organism present in the environment. This is particularly important as disinfectants will not be as effective if surfaces are not first cleaned. In general, solutions should be mixed fresh and allowed to air dry when used. Adequate ventilation must be used. Nitrile gloves and goggles are also appropriate during application. If spraying large areas, respirator use may also be appropriate. The EHS Department should be contacted for exposure assessment and equipment selection.

In Ag facilities, disinfection may not be practical, however practicing good sanitation and hygiene will reduce the potential for contamination. For cases where disinfection is difficult such as dirt floors, porous surfaces or large areas, contact the EHS office at 265-5000 for guidance.

¹ Scott, George H. and Williams, Jim C., Susceptibility of Coxiella Burnetti to Chemical Disinfectants, Rickettsiology: Current Issues and Perspectives, Volume 590 of the Annals of the New York Academy of Sciences, June 26, 1990

² Determination of veterinary bactericidal activity of Virkon-S against Coxiella Burnetii in high soiling conditions, Central Venterinary Institute, Edelhertweg 15, 8219 PH Lelystad, The Netherlands, accessed at: http://www.falw.vu/dida/protocol/Virkon_S_v_Coxiella_Burnetii.pdf

³ Virkon S Prevention and Control of Disease on Feedlots, Dupont Animal Health Solutions, Lienert Australia Head Office, 1 Gartrell Sreet, Roseworthy SA 5371, accessed at: <http://www.lienerts.com.au/content/media/PDF%20Fact%20Sheets/Biosecurity%20Products/cattle/Virkon%20S%20-%20cattle%20feedlot.pdf>

⁴ Diagnosis and Management of Q Fever- United States: Recommendatons from CDC and the Q Fever Working Group

Appendix III

University of Wisconsin

Medical Response Plan for *Coxiella burnetii*

C. burnetti Exposure Medical Response Guidance for the University of Wisconsin-Madison

1.0 Instructions: Information in this guidance is meant to inform both laboratory staff and health professionals about the risks and treatment in the event of an infectious agent exposure. In using this guidance, please consider that multiple routes of exposure may occur in a lab and that organism strains will sometimes be genetically modified to incorporate traits such as antimicrobial resistance. Research protocols and other available guidance such as Health Canada material safety data sheets will be provided as supporting information when available. It should be assumed that when exposures do occur, that the healthcare provider will be provided with information about the specific organism and strain involved, route of exposure, inoculum concentration, and patient vaccination and serological status, when available. This document was developed by UW Occupational Medicine in consultation with the UW Division of Infectious Disease. The information provided below is intended to provide guidance for treating physicians. Treatment and evaluation plans should be individualized to the patient based on the patient's symptoms, exposure risk, and underlying health status.

If there are any questions about this document, please contact University Health Services, Occupational Medicine at 265-5610.

2.0 Signs and Symptoms of Infection- Describe signs and symptoms associated with the agent.

About one-half of all people infected with *Coxiella burnetii* show signs of clinical illness.

Acute Q fever: sudden onset of one or more of the following: high fevers (up to 104-105° F), severe headache (often retro-orbital), general malaise, myalgia, confusion, sore throat, chills, sweats, non-productive cough, nausea, vomiting, diarrhea, abdominal pain, and chest pain. Fever usually lasts for 1 to 2 weeks. Up to 20% of patients may have a maculopapular or purpuric rash.

Thirty to fifty percent of patients with a symptomatic infection will develop pneumonia, many with a dry cough, dry crackles and pleuritic chest pain.

Laboratory findings include 2 to 3 times elevated liver functions test results in half of patients, abnormal white cell count in 30% and thrombocytopenia in 25%.

Chronic Q fever, characterized by infection that persists for more than 6 months, is uncommon but is a much more serious disease. Patients who have had acute Q fever may develop the chronic form as soon as 6 months or as long as 20 years after initial infection. A serious complication of chronic Q fever is endocarditis, generally involving the aortic heart valves, less commonly the mitral valve. Q fever endocarditis is seen almost exclusively in patients with preexisting valvulopathy or prosthetic valves. Chronic Q fever develops in 1-5% of patients.

3.0 Infectivity- Describe infective dose, relevant exposure routes (considering laboratory use), incubation period and potential severity of infection.

Infection of humans usually occurs by inhalation. Q fever outbreaks have resulted mainly from occupational exposure involving veterinarians, meat processing plant workers, sheep and dairy workers, livestock farmers, and researchers at facilities housing sheep.

Research facility outbreaks have been caused by the use of goats and gravid sheep in experimental studies. Organisms are excreted in milk, urine, feces, and birth products of infected animals. Most importantly, during birthing the organisms are shed in high numbers within the amniotic fluids and the placenta. *C Burnetti* may also be transmitted via drinking raw milk, blood transfusion, skin trauma, and intradermal inoculation. Person to person transmission, including by sexual contact, has only rarely occurred

A single *C. Burnetii* organism may cause disease in a susceptible person. The *C. Burnetii* organism may remain viable in air or soil for 2 weeks to 5 months.

Infection typically develops within 2-4 weeks of exposure. Infection with greater numbers of organisms will result in shorter incubation periods. Those who recover fully from infection may possess lifelong immunity against re-infection.

In addition, this agent could be developed for use in biological warfare and is considered a potential terrorist threat.

Most patients will recover to good health within several months without any treatment. 1%-2% of people with acute Q fever die of the disease.

4.0 Description of First Aid - Provide an overview of first aid treatment of exposures considering that multiple routes of exposure could occur (needlestick, aerosol, eye, skin and ingestion).

1. If needle puncture, laceration, scratch or broken skin occurs:
 - Squeeze the puncture or open area to induce bleeding
 - Cleanse the wound thoroughly with soap and water
2. If a mucous membrane or eye exposure occurs:
 - Irrigate the affected area immediately with copious amounts of water or normal saline for at least 3 minutes
3. If suspected inhalational exposure, vacate the laboratory immediately and contact the RO or ARO.

5.0 Urgency of Medical Care- Describe how soon medical attention should be sought, i.e. is an ER visit necessary, a visit to University Health Services, or simply schedule a visit with a personal physician.

All exposures, after initial first aide, should be immediately reported to UW-Madison RO or ARO's (Responsible Official or Alternate Responsible Official) and PI. RO/ARO's can be reached at their direct office numbers or through the UW-Madison Police Department at 262-2957 or by dialing 9-1-1. RO/ARO will contact UW Infectious Disease to arrange for appropriate medical attention and notify UHS Occupational Medicine (608-262-5610 or 608-252-0955).

Contact with a medical provider within 24-48 hours for consideration of post-exposure prophylaxis (as detailed below) is indicated, unless the specific injury requires more urgent attention, such as sutures or additional cleansing.

6.0 Description of Medical Response- Provide an overview for clinical treatment of exposures to the agent considering that multiple routes of exposure could occur (needlestick, aerosol, eye, skin and ingestion) and that strains of agents will vary and sometimes include antimicrobial resistance.

Post exposure prophylaxis:

Post-Exposure prophylaxis may be considered for occupational exposures. A dose of 100 mg of doxycycline taken orally twice daily for 15-21 days is a frequently prescribed therapy.

Acute Q Fever:

Acute Q Fever is usually self-limited and resolves without treatment. Treatment, however, may reduce the risk of development of chronic Q fever. Antibiotic treatment is most effective when initiated within the first 3 days of illness. A dose of 100 mg of doxycycline taken orally twice daily for 14-21 days is a frequently prescribed therapy.

Treatment of acute Q fever in individuals with valvular heart disease, chronic Q Fever and Q Fever endocarditis should be managed in consultation with an infectious disease expert.

7.0 Description of Medical Surveillance- Describe the advisability of medical surveillance strategies (in particular baseline and annual serology) for those working with the agent. If doing so would likely improve the identification, diagnosis or treatment of exposures, please indicate so.

After an exposure:

1. Acute titers, Phase I and II IgG and IgM, should drawn be at the time of exposure.
2. Titers should be repeated again in 1-2 months.

For persons with clinical symptoms:

1. IFA (immunofluorescence assay) is the current reference method for serodiagnosis of Q fever. Single IFA titer of 1:256 or greater is considered diagnostic.
2. Seroconversion is usually detected 7 to 15 days after the onset of clinical symptoms. Approximately 90 percent of patients have detectable antibodies by the third week.
3. A titer ≥ 200 for IgG and ≥ 50 for IgM against phase II antigens indicate a recent Q fever infection, while an IgG titer > 800 against phase I antigens suggests chronic infection.
4. In addition, baseline CPK, CBC w/diff, ESR, and Liver enzymes should be checked and monitored every 2 weeks until symptoms resolve or labs normalize.

Approximately 3% of currently healthy people in the U.S. general population and up to 20% of people in high-risk professions (veterinarians, ranchers, etc.) have elevated antibody titers due to past exposure to *C. burnetii*. Therefore, if only one sample is tested it can be difficult to interpret the findings.

8.0 Considerations for Infection Control-Describe any special precautions required to prevent the further spread of infection. Include precautions for the healthcare, workplace, and home setting.

C Burnetti is not thought to be transmitted person to person, but there have been rare

cases of transmission attributed to sexual contact.

9.0 Reporting-Describe any public health or federal regulatory reporting requirements. Include the timing and mechanism for reporting.

Public Health:

Cases or suspected care are reportable to Public Health Madison Dane County (or the patient's [local health officer](#)) on an Acute and Communicable Disease Case Report (DPH F-44151) or by other means within 72 hours of the identification of a case or suspected case. See [s. HFS 145.04 \(3\) \(b\)](#) (PDF, 59 KB)

Exposure or potential exposure will be reported to the state health department communicable disease section by the Responsible Official at 608-267-9003(7:45 AM-4:30 PM) or through the 24 hour WI health department clinical emergency contact number 608-258-0099 (after hours). The CDC Division of Select Agents and Toxins will also be notified by the Responsible Official.

10.0 References:

1. CDC website accessed 2/16/11: <http://www.cdc.gov/ncidod/dvrd/qfever/index.htm>
2. Bernit E. et al. Neurological involvement in acute Q fever: a report of 29 cases and review of the literature. Arch Intern Med. 2002;162(6):693-700.
3. Fournier PE, Marrie TJ, Raoult D. Diagnosis of Q fever. J Clin Microbiol. 1998;36(7):1823-34.

11.0 Document Revisions

Revision History		
Revision Number	Date	Description of Revision
Initial Approval	2/2012	Original draft
1	12/4/13	Changed to new format
2 ASW	5/19/2015	Reviewed; minor edits

**C. Burnett Exposure Medical Response Guidance
for the
University of Wisconsin- Madison**

Appendix IV

**Template for Disclosure of Workplace Risks
Associated with Livestock Work**

1.0 Purpose: The purpose of this template is to aid the supervisor in communicating and documenting the understanding of workplace risks where significant hazards may be present. It is not mandatory, but can help document the sharing and understanding of information important to maintaining health and safety among workgroup staff.

2.0 Directions: Edit the content below to reflect hazards and precautions pertinent to the work group and review the form with the employee or student. Send a copy to the Occupational Health Program at 333 East Campus Mall, Room 8303.

3.0 Template Content:

**Safety Information for Individuals Working with <Livestock> in the
<Facility>**

Purpose: This document outlines risks associated with work in the <facility>, steps to protect against those risks, and the rights and responsibilities for all personnel working with <livestock and/or associated zoonotic agents>.

Individuals Covered: This document applies to all personnel in the <workgroup or class>.

Risks: Working with livestock can involve exposure to physical and biological hazards. Procedures are put in place to minimize such hazards (including standard work practices, frequent hand washing, use of personnel protective equipment and engineering barriers). Under normal conditions, the potential of obtaining a zoonotic (animal-acquired) illness while working with <livestock> is low as long as the proper procedures are followed. While the probability of an exposure is the same regardless of immune status, an immunocompromised individual (i.e. a person whose immune system is impaired or weakened by illness, drugs or other medical treatments, or other causes) may have a greater risk of developing infection and the resulting illness could be more severe. Additionally, immune status may affect treatment options. <This disclosure should be supplemented with relevant Safety Data Sheets or medical response plans for infectious agents that could be encountered and any workplace-specific standard operating procedures to mitigate risk>.

Policy: The University of Wisconsin-Madison does not deny access to research facilities solely on immune status. However, it is highly recommended that any

immunocompromised individual not work with <livestock> if, because of a person's immune status, doing so could adversely affect that person's health. Individuals should report to their supervisor or instructor any changes in health status potentially affecting their immune competency so that accommodations can then be made for that individual.

Should you have any questions on how your current health conditions would affect your ability to work with infected animals you are urged to contact one of the following:

- **Your personal physician** – your personal physician should be fully aware of your current health condition and your physician can help you decide if your current condition places you at a greater risk. Please be prepared to tell your health provider what specific agents or toxins you are working with.
- **University Health Services** – UHS has an occupational health nurse and physician on staff that can answer questions about the impact of workplace hazards on health. All employees may schedule a consultation to discuss their questions and concerns. UHS occupational medicine staff can be reached at 265-5610.
- **UW-Madison Occupational Health Officer** – The UW Occupational Health Officer may be able to answer your questions or provide you with additional options. Contact the Occupational Health Officer at 608-263-2177.

Should any individual currently working with <livestock> experience a change in health status potentially affecting his/her immune system, that individual should discuss the situation with his/her Divisional Disability Representative (DDR) so that any necessary accommodations can be considered. A list campus DDRs can be found at:

<http://www.oed.wisc.edu/disability/dlrdiv.html>

Acknowledgement: By signing below you acknowledge that you have reviewed and understand this disclosure.

Name: _____ Date: _____

Signature: _____