



**SAFETY PROCEDURE/GUIDELINES
Sheep Containment Unit**

NUMBER: Procedure Guideline SF-06

**SUBJECT: For Laboratories Outside of the SCU working with organs,
tissues and/or blood from sheep used in the Health Sciences Sheep
Containment Unit (SCU)
Occupational Health and Safety**

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EFFECTIVE DATE: January, 2007

SUPERSEDES: September, 2006

APPLIES TO: All Personnel

APPROVED: January, 2007, Biosafety Committee Chair

1.0 Introduction

- 1.1 Sheep are a common reservoir of the zoonotic agent *Coxiella burnetti*, a rickettsial micro organism which, if transmitted can infect humans and may cause an illness called Q fever. About one half of people infected with *C. burnetti* show signs of clinical illness with a small percentage of clinical cases developing pneumonia and some cases developing liver disease or rarely, endocarditis.

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.

The risk of exposure for personnel is significantly higher when work with pregnant sheep where large numbers of organisms may be present in placenta, birth tissues and amniotic fluids of infected animals. Persons at risk (i.e. those with valvular heart disease, persons who are immune suppressed or pregnant women) should be advised of the risk of serious illness that may result from Q fever and should seek medical advice before working with pregnant sheep.

For more information on Q-Fever, please see:

(Health Canada) <http://www.phac-aspc.gc.ca/msds-ftss/>
(CDC) <http://www.cdc.gov/ncidod/dvrd/qfever/>

2.0 Measures to Reduce the Risk of Exposure to Q Fever

- 2.1 Sheep will only be admitted to the facility where there is no record of Q fever infection in the originating flock as determined by the best available testing methodology (See SOP 169).
- 2.2 The sheep housing facilities and operating rooms at UWO will be designed and operated at the standard required by Health Canada as stated in the "Guidelines for Biomedical Facilities using Sheep as Research Animals" December 2000". This standard is available at: www.phac-aspc.gc.ca/ols-bsl/aminres_e.html
- 2.3 Entrance to the sheep facilities will be limited to approved persons only.
- 2.4 ***These procedures and SOPs are intended to reduce the risk of exposure to Q Fever for all personnel who work in the Sheep Containment Facility at the University of Western Ontario. It is essential for the protection of all, that all procedures are followed at all times by all personnel.***

3.0 Laboratories employing UWO staff who will handle organs, blood and/or tissues from sheep housed in the UWO Health Sciences Sheep Containment Unit must be listed with Occupational Health and Safety Services at UWO. The laboratory supervisor must complete a University Biohazardous Agents Registry Form and submit it to Occupational Health and Safety (OHS) at UWO for review. This will require the laboratory to be inspected by the safety officer for the facility.

Tissues or blood which have been decontaminated by a procedure approved by Occupational Health and Safety at UWO do not require Level 2 precautions.

Tissues or blood from animals verified by PCR analysis to be *C. burnetti* free do not require Level 2 precautions.

Tissues or blood from animals not verified by PCR analysis to *C. burnetti* free must follow Level 2 precautions, as stated in the UWO Biosafety Manual:

http://www.uwo.ca/humanresources/facultystaff/h_and_s/lab_safety_idx.htm

All laboratory and transportation requirements must be met according to the Laboratory Health and Safety Manual for General Laboratory Practices: http://www.uwo.ca/humanresources/facultystaff/h_and_s/lab_safety/lab_safety_idx.htm