McMaster University
Medical Monitoring Program Information Sheet

The purpose of this document is to provide information on an agent/virus in order for all McMaster University staff and students to make an informed decision about entering our medical monitoring program.

Please review this document, print your name, sign and date the Memorandum of Understanding and Agreement and then provide it to your supervisor.

Chlamydia trachomatis

The following summary is provided by the McMaster Biosafety Office.

For a complete copy of the excerpted text below please refer to: http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/msds32e-eng.php

Decontamination: Susceptible to 1% sodium hypochlorite, 70% ethanol, 2% glutaraldehyde, formaldehyde. Susceptible to moist heat (121°C for at least 15 min) and dry heat (160-170°C for at least 1 hour)

LABORATORY-ACQUIRED INFECTIONS: Chlamydia is the fifth most commonly reported infection (most are psittacosis); 6 reported cases of infection with C. trachomatis up to 1987 ; usually manifested as conjunctivitis, however severe cases of pneumonia have occurred through exposure to aerosols. Will remain viable in carcass and organs - 1 to 7 days; glass - 30 min; water (50°C) - 30 min. In addition to the agent, sources are genital, bubo and conjunctival fluids

PRIMARY HAZARDS: Accidental parenteral inoculation; direct and indirect exposure of mucous membranes of the eyes, nose, and mouth to infected fluids (see above), cell culture materials and fluids from infected eggs; infectious aerosols are a potential source of infection

CONTAINMENT REQUIREMENTS: Biosafety level 2 practices and containment for the diagnostic examination of tissues known or potentially infected with C. trachomatis; Biosafety level 3 may be indicated for activities with high potential for droplet or aerosol production or production quantities

PROTECTIVE CLOTHING: Laboratory coat; gloves when direct contact with infectious materials is unavoidable; gown (tied wrists and tie in back) and gloves for work in biosafety cabinet

OTHER PRECAUTIONS: Do not rub eyes while handling chlamydia-infected materials

SPILLS: Allow aerosols to settle; wearing protective clothing, gently cover spill with paper towel and apply 1% sodium hypochlorite, starting at perimeter and working towards the centre; allow sufficient contact time (30 min) before clean up
**DISPOSAL:** Decontaminate before disposal; steam sterilization, chemical disinfection, incineration

The following summary is provided by Employee Health Services.

For a complete copy of the excerpted text below please refer to:
http://www.cdc.gov/std/chlamydia/STDFact-Chlamydia.htm
http://www.who.int/vaccine_research/diseases/soa_std/en/index1.html

**Facts**

C. trachomatis is an obligate intracellular pathogen (i.e. the bacterium lives within human cells) and can cause numerous disease states in both men and women. Both sexes can display urethritis, proctitis (rectal disease and bleeding), trachoma, and infertility. The bacterium can cause prostatitis and epididymitis in men. In women, cervicitis, pelvic inflammatory disease (PID), ectopic pregnancy, and acute or chronic pelvic pain are frequent complications. C. trachomatis is also an important neonatal pathogen, where it can lead to infections of the eye (trachoma) and pulmonary complications. Chlamydia trachomatis is the single most important infectious agent associated with blindness; approximately 600 million worldwide suffer C. trachomatis eye infections and 20 million are blinded as a result of the infection. Chlamydia trachomatis is transmitted via direct contact with discharges from infected persons, or materials soiled therewith; venereal transmission.

**Symptoms**

Chlamydia is known as a "silent" disease because the majority of infected people have no symptoms. If symptoms do occur, they usually appear within 1 to 3 weeks after exposure. Conjunctivitis in adults manifests with preauricular lymphadenopathy, hyperemia, infiltration, and mucopurulent discharge. There may also be a chronic phase with discharge and symptoms which may last for a year or longer if untreated.

In women, the bacteria initially infect the cervix and the urethra (urine canal). Women who have symptoms might have an abnormal vaginal discharge or a burning sensation when urinating. If the infection spreads from the cervix to the fallopian tubes (tubes that carry fertilized eggs from the ovaries to the uterus), some women still have no signs or symptoms; others have lower abdominal pain, low back pain, nausea, fever, pain during intercourse, or bleeding between menstrual periods. Chlamydial infection of the cervix can spread to the rectum.

Men with signs or symptoms might have a discharge from their penis or a burning sensation when urinating. Men might also have burning and itching around the opening of the penis. Pain and swelling in the testicles are uncommon.

Rarely, genital chlamydial infection can cause arthritis that can be accompanied by skin lesions and inflammation of the eye and urethra (Reiter's syndrome).

In pregnant women, there is some evidence that untreated chlamydial infections can lead to premature delivery. Babies who are born to infected mothers can get chlamydial infections in their
eyes and respiratory tracts. Chlamydia is a leading cause of early infant pneumonia and conjunctivitis (pink eye) in newborns.

**Diagnosis**
Diagnosis is made based on history, physical examination, and laboratory investigation. The diagnosis is confirmed by examination of genitourinary, rectal or conjunctival swab material by culture, molecular diagnostic tests, antigen detection, and fluorescent antibody tests.

**Treatment**
Flush exposed area of eye with water; topical or oral treatment with antibiotics. There is no immunization available, however; identification of potential vaccine antigens is currently an active area of research.

**Prevention**
Laboratory coat; gloves when direct contact with infectious materials is unavoidable; gown (tied wrists and tie in back) and gloves for work in biosafety cabinet. Do not rub eyes while handling chlamydia-infected materials.

---

**Memorandum of Understanding and Agreement ("MUA") for BSL2 Medical Monitoring Program**

**Note:** This MUA is to be signed by the employee/student and supervisor, filed and kept by the supervisor. It will be reviewed during the annual biosafety audit by the McMaster Biosafety office.

The employee/student named below acknowledges and agrees as follows:

- I have read and understand all of the information in this Medical Monitoring Information Sheet provided jointly by the McMaster Biosafety Office and Employee Health Services and reviewed the biologically hazardous agent to which I have potential exposure. **Initial here**

- I will report a pregnancy or a compromised immune system (due to medication {steroid or other immunosuppressive therapy}, organ transplant, chemotherapy or radiation therapy, HIV infection etc.) to my supervisor and X (graduate students) or Employee Health Services Occupational Health Nurse at ext. 20310 (faculty and staff) **Initial here**

- I will report an exposure to a biological agent to my supervisor immediately and complete a McMaster incident/accident report. **Initial here**
• I will report any illness that resembles the symptoms listed in this Medical Monitoring Information Sheet to my supervisor.  **Initial here**

• I recognize my responsibility to observe all safety practices and precautions while present in the BSL2 laboratory.  **Initial here**

• I am aware of, and wish to participate in, the medical monitoring program (RMM #605) for this biological level 2 agent. Please circle: [yes]  [no]  **Initial here**

Employee/Student print name:  
_________________________________________  
Signature:  ________________________________

Supervisor print name:  
_________________________________________  
Signature:  ________________________________

Date:  ________________________________  
Date:  ________________________________