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.

**Clostridium difficile**

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/msds36e-eng.php

**MODE OF TRANSMISSION:** Fecal-oral contact; evidence for transmission via fomites and hands exists.

Spores are fairly resistant; moderate susceptibility to 1% sodium hypochlorite; susceptible to high level disinfectants (>2% glutaraldehyde) with prolonged contact time. Spores are fairly resistant to heat (spores destroyed by moist heat - 121°C for at least 15 min). Spores can survive for long periods outside of host.

**LABORATORY-ACQUIRED INFECTIONS:** 1 reported case of a laboratory-acquired infection from *C. difficile*

**PRIMARY HAZARDS:** Injuries from contaminated sharp instruments

Biosafety level 2 practices, containment equipment and facilities for activities involving clinical specimens and cultures. Laboratory coat; gloves when direct contact with infectious materials is unavoidable.

The following summary is provided by Employee Health Services.

For a complete copy of the excerpted text below please refer to:

**Facts**

*Clostridium difficile*, commonly called *C. difficile*, is a bacterium that causes diarrhea and other
serious intestinal conditions. It is the most common cause of infectious diarrhea in hospitalized patients in the industrialized world.

*C. difficile* bacteria are found in feces. People can become infected if they touch items or surfaces that are contaminated with fecal traces, then touch their mouth or nose. Health care workers can spread the bacteria to other patients or contaminate surfaces through hand contact.

The use of antibiotics increases the chances of developing *C. difficile* diarrhea because antibiotics alter the normal levels of good bacteria found in the intestines and colon. When there are fewer good bacteria, *C. difficile* can thrive and produce toxins that can cause an infection. In hospital and long-term care settings, the combination of a number of people receiving antibiotics and the presence of *C. difficile* can lead to frequent outbreaks.

Those at risk include the elderly, people treated with antibiotics, or cancer chemotherapy. In addition, patients taking stomach ulcer drugs known as proton pump inhibitors are at increased risk to contract *C. difficile* infection.

**Symptoms**
The symptoms of *C. difficile* include: watery diarrhea (at least three bowel movements per day for two or more days), fever, loss of appetite, nausea and abdominal pain or tenderness. The incubation period is not known.

**Diagnosis**
Diagnosis is confirmed through fecal (stool) samples.

**Treatment**
For people with mild symptoms, no treatment is needed. The symptoms usually clear up once the individual stops using antibiotics. In severe cases, medication and even surgery may be needed. There is no immunization available.

**Prevention**
Follow these tips to prevent spread of the bacteria.

- If you work in a hospital or a long-term health care facility, or visit someone there, wash your hands often, especially after using the toilet. Most health care facilities now provide an alcohol-based hand sanitizer at the entrance. Be sure to use it.
- Use antibiotics only when necessary for serious infections. Be sure to take the full course of antibiotics, even after you start to feel better. If even some of the bacteria survive, they may become resistant to the antibiotic, making the infection harder to treat.
- If you are taking antibiotics or stomach medications, talk to your doctor about any concerns you might have about *C. difficile*. 
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: ____________________________  Supervisor print name: ____________________________

Signature: ____________________________  Signature: ____________________________

Date: ____________________________  Date: ____________________________