

THE UNIVERSITY OF WESTERN ONTARIO

OCCUPATIONAL HEALTH AND SAFETY

CONTAINMENT LEVEL 1 - BASIC MICROBIOLOGICAL LAB SAFETY PRACTICES

For basic level laboratories using non-infectious biological agents as stated in "Laboratory Biosafety Guidelines", 2nd ed. 1996, Health Canada.

Operational Requirements

1. All lab personnel and others entering the area must be trained in appropriate safety precautions and procedures for the chemical and biological hazards that they may come into contact with during normal work in the laboratory. Records of training will be kept by OHS.

Personnel are required to know, understand and follow standard practices and procedures.

Written procedures for the lab should be prepared that identify the hazards and specify the procedures to be used to minimize risk. The written procedures should also contain an emergency response plan for fire or other emergencies.

2. The lab should be kept neat and orderly with storage of materials kept to a minimum.

3. Lab coats must be available and worn by all personnel using biological agents. Open toed shoes are not acceptable.

4. Other personal protective equipment, (glasses, goggles or face shields) should be worn as appropriate for the procedure.

5. Gloves should be used for procedures that might result in skin contact with hazardous agents.

6. Eating, drinking and smoking in the lab are not permitted. Storage of food in labs is not permitted.

7. No mouth pipetting is allowed.

8. Long hair must be tied back.

9. Hands must be washed frequently, after the removal of gloves, when finishing a procedure and when leaving the lab.

10. Work surfaces should be cleaned after use with a suitable disinfectant.

11. All procedures should minimize the production of aerosols.

12. All materials contaminated with a microbiological agent must be decontaminated by autoclaving or disinfection prior to disposal or re-use.

13. Hazard warning signs must be posted outside each lab indicating the risk level of the agent being used, the name of the responsible person and an emergency phone number.

14. Needle and syringe use should be restricted and used with caution. They must be disposed of in a puncture resistant container at the site of use and disposed of by incineration.

15. Spills and accidents must be reported to the lab manager.

16. The microbiological agent(s) in use must be declared on the University "position hazard form" by the supervisor. Lab workers should participate in the medical surveillance programme through the University Staff/faculty Health Office.

Physical Requirements for the Laboratory

1. No special air handling features for the laboratory are required.

2. The laboratory must be separated from public areas by a door

3. Floors, walls and lab furniture must be washable and suitable for disinfection.

4. Handwashing facilities must be available

5. Eyewash required if chemicals are used in area

6. Biological containment provided by standard microbiological techniques. Biological safety cabinets are not required for containment but may be used to create a sterile work environment.